Draft Supplemental Environmental Impact Report

Prior SCH # 96061052

Volume 6
Appendix V (1997 FEIR/EIS Volumes 3 - 4)

Golden Queen Mining Co. Inc., Soledad Mountain Project

Conditional Use Permit No. 27, Map 196
Modification of Conditional Use Permit No. 41, Map 213
Modification of Conditional Use Permit No. 22, Map 214
Nonsummary Vacation of a Portion of New Eagle Road 191-31 3 098
(PP08210)

Kern County
Planning Department
Bakersfield, California

January 2010

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Kern County Planning Department

Public Services Building
2700 M Street, Suite 100
Bakersfield, CA 93301-2370
Contact: Scott F. Denney, AICP
(661) 862-8631

Technical Assistance by:

RGP Planning & Development Services
8921 Research Drive
Irvine, CA 92618
(949) 450-0171

January 2010

List of Appendices: EIR Volume 6

Appendices: EIR Volume 6

APPENDIX V – 1997 FEIR/EIS VOLUMES 3 - 4

GOLDEN QUEEN MINING COMPANY, INC.

SOLEDAD MOUNTAIN PROJECT
MOJAVE, KERN COUNTY, CALIFORNIA

~~DRAFT~~

ENVIRONMENTAL IMPACT REPORT /
ENVIRONMENTAL IMPACT STATEMENT

VOLUME 3
(Appendix III)

MAY 1997

COUNTY OF KERN
PLANNING DEPARTMENT
BAKERSFIELD, CALIFORNIA

BUREAU OF LAND MANAGEMENT
RIDGECREST RESOURCE AREA
RIDGECREST, CALIFORNIA

VOLUME 3 OF 6

Appendix III

GOLDEN QUEEN MINING COMPANY, INC.

SOLEDAD MOUNTAIN PROJECT
MOJAVE, KERN COUNTY, CALIFORNIA

SURFACE MINING RECLAMATION PLAN

May 1996
Revised August 1996
Revised January 1997
Revised March 1997
Revised April 1997

Submitted to:
Kern County Department of Planning
and Development Services
2700 "M" Street, Suite 100
Bakersfield, California 93301

Prepared for:
Golden Queen Mining Company
11847 Gempen Street
Post Office Box 820
Mojave, California 93501

Prepared by:
WZI Inc.
4700 Stockdale Highway, Suite 120
Bakersfield, California 93309

07330010.135

EXHIBITS

TABLES

ATTACHMENTS

Attachment A	List of Interests Acquired for Project
Attachment B	Biological and Soil Resource Evaluation for Soledad Mountain Project
Attachment C	Soledad Mountain Project, Slope Stability Analysis
Attachment D	Reclamation and Revegetation Procedures for Soledad Mountain Project
Attachment E	Site Drainage Plan

APPLICATION FOR
SURFACE MINING PERMIT AND/OR RECLAMATION PLAN
KERN COUNTY PLANNING DEPARTMENT

OWNER, OPERATOR, AND AGENT:

1. Applicant:

Name	**Golden Queen Mining Company, Inc.**
Address	**11847 Gempen Street, Post Office Box 820** **Mojave, California 93501**
Telephone	**(805) 824-1054**

2. Name (if any) of Mineral Property:

Soledad Mountain Project

3. Property Owner(s) or Owner(s) of Surface Rights (list all owners):

Name	**Golden Queen Mining Company, Inc.**	**U.S.A.**
Address	**11847 Gempen Street** **Post Office Box 820** **Mojave, California 93502-0820**	**Department of the Interior** **Bureau of Land Management** **300 South Richmond Road** **Ridgecrest, California 93555**
Telephone	**(805) 824-1054**	**(619) 384-5400**

4. Owner(s) of Mineral Rights:

Name	**See Attachment A**
Address	
Telephone	

5. Lessee:

Name	**Golden Queen Mining Company, Inc.**
Address	**11847 Gempen Street, Post Office Box 820** **Mojave, California 93502-0820**
Telephone	**(805) 824-1054**

6. Operator:

Name	**Golden Queen Mining Company, Inc.**
Address	**11847 Gempen Street, Post Office Box 820** **Mojave, California 93502-0820**
Telephone	**(805) 824-1054**

OWNER, OPERATOR, AND AGENT: (continued):

7. Agent of Process (person designated by operator as his agent for the service of process):

Name	**Richard Graeme**
Address	**11847 Gempen Street**
	Post Office Box 820
	Mojave, California 93502-0820
Telephone	**(805) 824-1054**

(Reference SMARA 2772(C)(1))

LOCATION:

8. Brief description, including legal, of the extent of the mined lands (to be) involved by this operation, including total acreage:

   Section(s) 5, 6, 7, 8, Township 10N, Range 12W, SBB&M
   Section(s) 1, 12, Township 10N, Range 13W, SBB&M

   Assessor's Parcel Number (APN) **Attachment A**

   The project location is west of California State Route 14 and south of Silver Queen Road. Exhibit 1 shows the property boundary as well as the proposed project area. Within the sections shown, Golden Queen acquired control of approximately 2,840 acres. Pursuant to SMARA Section 2772(c)(5), a metes and bounds legal description of the project area is included in Attachment A. The project area is on approximately 1,600 acres of undeveloped desert property.

(Reference SMARA 2772(C)(5))

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9. Description of the access route to the operation site:

   Primary access to the site will be from California State Route 14 west on Silver Queen Road which is approximately five miles south of Mojave. Exhibit 2 is a regional location map and Exhibit 3 shows the State Route 14 and Silver Queen Road interchange. The entrance road will turn south from Silver Queen Road opposite the intersection of Silver Queen Road and Goldtown Road. The entrance to the site will be paved within the right-of-way of Silver Queen Road. The remainder of the access road will be surfaced with rock aggregate.

   (Reference SMARA 2772(C)(11))

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10. Attach Location and Vicinity Map.

    Exhibit 2 is a regional location map and Exhibit 1 shows the topography of the vicinity, as well as property boundaries and the proposed project area.

(Reference SMARA 2772(C)(11))

DESCRIPTION:

11. Mineral commodity (to be) mined:

    Precious metals (gold and silver), with aggregate and construction materials as byproducts.

(Reference SMARA 2772(C)(2))

DESCRIPTION (continued):

12. Geologic description, including brief general geologic setting, more detailed geologic description of the mineral deposit (to be) mined, and principal minerals or rock types present:

    The site is located in the western Mojave Desert Geomorphic Province of Southern California. The Mojave Desert is a wedge-shaped fault block which is separated from the Sierra Nevada Mountains to the north by the Garlock Fault Zone and from the Transverse Ranges and coastal areas to the southwest by the San Andreas Fault Zone. The rock types of the western Mojave Desert have been grouped into three main divisions (Dibblee, 1967) which include pre-Tertiary age crystalline rocks, Tertiary age sedimentary and volcanic rocks and Quaternary age sediments and local basalt flows. Soledad Mountain consists of an eroded silicic volcanic center of Middle to Late Miocene age (16.9 to 21.5 million years). The volcanics consist of felsic flows, tuffs and breccias of the Gem Hill Formation, with rock types ranging from quartz latite to rhyolite. The flanks of Soledad Mountain are mantled by Quaternary alluvium deposits consisting of sandstones and conglomerates.

(Reference SMARA 2773(a))

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13. Brief description of environmental setting of the site and the surrounding areas, including existing area land use, soil, vegetation, groundwater elevation, surface water characteristics, average annual rainfall and/or any other factors pertaining to environmental impacts and their mitigation and reclamation:

    See Attached (page 13)

(Reference SMARA 3502 (b)(1))

PROPOSED (EXISTING) SURFACE MINING OPERATION:

14. Time Frame of Project

    a. Proposed Starting Date of Operation: __11/1/97 (Construction Start)__

       Estimated Life of Operation: __16 - 20 years__

       Duration of First Phase: __Construction: 9-12 months__

    b. Operation will be (is):

       Continuous __X__ Seasonal ____ Intermittent ____

       Developed, Not Yet in Operation ____ Temporarily Deactivated ____ Stockpile in Mine ____

(Reference SMARA 2772(C)(3))

PROPOSED (EXISTING) SURFACE MINING OPERATION (continued):

15. Project Production

a. Annual production will be (is):

Under 5,000 tons/cubic yds/yr	
5,000 - 50,000 tons/cubic yds/yr	
50,000 - 250,000 tons/cubic yds/yr	
250,000 - 1,000,000 tons/cubic yds/yr	
More than 1,000,000 tons	X

b. Total anticipated production:

Mineral commodities to be removed - (circle one) tons **60 million**

Waste retained on the site - (circle one) tons **230 million**

Waste disposed offsite - (circle one) tons/cubic yds **N/A**

Maximum anticipated depth **1,300** ft

(Reference SMARA 2772(c)(2) and (4))

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16. Mining Method (check all applicable):

a.

Open Pit	X	Gravel/Sand Pit	
Single Bench		Drill and Blast	X
Quarry:		Clay Pit	
Hill Top		Truck to Processing Plant (to RR)	X
Multibench		Borrow Pit	
Side Hill		Tailings Ponds	
Dragline		Slurry Pump	
Low Level		Waste Dump	X
Shovel		Rail	
Underground	X	Other	
Gravel Bar Skimming			

b. Identify the number and types of vehicles and equipment used in addition to their ADT (average daily trips).

Table 1 shows the Preliminary Mining Equipment List.
See Attached (page 22).

c. Maximum number of employees onsite at any one time **40 during normal operation.**

(Reference SMARA 2772(c)(11))

PROPOSED (EXISTING) SURFACE MINING OPERATION (continued):

17. Processing:

    a. If processing of the ores or minerals mined is planned to be conducted at or adjacent to the site, briefly describe the nature of the processing and explain disposal method of the tailings or waste from processing.
    See Attached (page 22).

    b. Estimate quantity (gallons per day) and quality of water required by the proposed operation, specifying proposed sources of this water and method of its conveyance to this property and the quantity and quality and method of disposal of used and/or surplus water.
    Golden Queen will use water for the heap leach operation and for dust control. Golden Queen will obtain water from wells planned in Section 31, Township 11 North, Range 12 West, S.B.B.M., north of Silver Queen Road. Golden Queen will pipe the water under Silver Queen Road to the project site. Golden Queen proposes to contain the pregnant solution within the heap leach pile and to use fixed-roof tanks for the barren solution rather than uncovered pregnant and barren ponds used at most mining operations. Pregnant leaching solution will be processed for precious metal recovery and then pumped to the barren solution tank to be recycled to the heap leach pad. The proposed project is expected to circulate 5,400 gallons of water per minute in the heap leach process. Daily makeup water demand is estimated to be 750 gallons per minute. Bottled water will be purchased for all potable and laboratory water needs.

(Reference SMARA 2772(c)(11))

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18. If the nature of the deposit and the mining method used will permit, describe and show the steps or phases of the mining operation that allow concurrent reclamation, and include a proposed time schedule for such concurrent activities.
Open pit mining activities will be occurring in several locations throughout the pit area at any one time and disposal of overburden material will take place at all proposed overburden sites throughout the mine life. No project phasing is proposed, therefore, no reclamation will take place until mining operations are completed in a given area.

(Reference 2772(c)(6) and 3503(a)(1))

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19. Attach a map of the mined lands showing the following information:
    a. Boundaries and topographic details of the site.
    b. Location of all streams, roads, railroads, water wells, structures, dwellings, and utility facilities within 500 feet of the site.
    c. Location of all currently proposed access roads to be constructed in conducting the surface mining operation.
    d. Location of areas (to be) mined, and of waste dumps and tailings ponds.
    e. By use of symbol or map overlay, depiction of separate mining phases, if applicable.
    f. The source of map base, orientation (North arrow), and scale (e.g., 1" = 500', etc.) of the map.
    Exhibit 1 Property Boundary and Project Area
    Exhibit 4 Conceptual Plot Plan

(Reference 2772(c)(5))

RECLAMATION PLAN:

20. Indicate on an overlay of map of Item 19, or by symbol on map, those areas to be covered by reclamation plan.

Exhibit 5 Reclamation Areas Acreage **<u>419 acres includes heap leach pad and overburden pile benches if any are necessary since benches at lower elevations would reduce acreage at upper elevations.</u>**

(Reference SMARA 2772(c)(5))

---

21. Describe the ultimate physical condition of the site and specify proposed use(s), or potential use(s), of the mined lands as reclaimed.

The proposed reclamation plan will return the land to a post-mining land use similar to the pre-mining land use, consistent with the Specific Plan for Soledad Mountain, which includes future mining, wildlife habitat and open space.

(Reference SMARA 2772(c)(7)

---

22. Provide evidence that all owners of a possessory interest in the land have been notified of the proposed use(s) or potential use(s) identified in Item 22. (Attach copy of notarized statement of acknowledgment, etc.)

There are eighty-one (81) land holders with possessory interest in the property (Attachment A). A copy of the letter sent to each holder of possessory interest is included in Attachment A.

(Reference SMARA 2772(c)(7))

---

23. Describe how implementation of the reclamation plan will affect future mining in the area.

Implementation of the Proposed Reclamation Plan would not limit future development of mineral resources in the area. Currently uneconomic precious metal resources contained in the walls and floors of the open pit mines would remain accessible for future exploration and development by underground or open pit methods.

(Reference SMARA 2772(c)(9))

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24. Describe how the proposed reclamation plan will affect public health and safety, giving consideration to the degree and type of present and probable future exposure of the public to the site.

See Attached (page 23).

(Reference SMARA 3502(b)(2)

---

25. Describe how the project will adhere to the specified requirements for protection of wildlife habitat.

See Attached (page 25).

(Reference SMARA 3703 and 3503(c))

---

26. Describe the reclamation procedures used to ensure adherence with the specified requirements for backfilling, regrading, slope stability, and recontouring. Indicate on map (Items 19 - 20) or on diagrams as necessary. Discussion should explain why final cut slopes proposed have a minimum slope stability factor of safety which is suitable for the proposed end use and conform with surrounding topography and/or approved end use. Additionally, a sufficient number of cross sections, no larger than 11 inches by 17 inches, which demonstrate existing and proposed final slopes should be incorporated into the plan. <u>NOTE</u>: If any final reclaimed fill slopes exceed 2:1 (horizontal to vertical), submit specific geologic and engineering analysis which demonstrates the proposed slope has a minimum slope stability factor of safety that is suitable for the proposed end use and when the proposed final slope can be successfully revegetated.

See Attached (page 26).

(Reference SMARA 3704 and 3502(b)(3))

---

27. If revegetation is proposed, describe what procedures will be employed to ensure adherence with the specified requirements. Indicate on map (Items 19 - 20) or on diagrams as necessary. If revegetation is not applicable, indicate why not. At a minimum, the plan should include or elaborate on the following:

    a. A baseline study documenting the vegetative density, cover and species richness of the site.
    b. Test plots to be employed/monitoring.
    c. Need for decompaction.
    d. Need for soil analysis.
    e. Proposed revegetation mix.
    f. When planting will be conducted.
    g. Need for irrigation.
    h. Protection measures to be employed.
    I. Success of revegetation.

    *Success of revegetation will be judged upon the effectiveness of the vegetation for the approved end use, and by comparing the quantified measures of vegetative cover, density and species richness, therefore, the plan will also need to specify:

<u>BASELINE</u>	<u>PERFORMANCE STANDARD</u>
Density -	Density -
Cover -	Cover -
Species -	Species -
Richness -	Richness -

See Attached (page 30).

(Reference SMARA 3705 and 3503(g))

---

28. Describe the reclamation procedures used to ensure adherence with the specified requirements for drainage, diversion structures, waterways and erosion control. Additionally, indicate on map (Items 19 - 20) or on diagrams, as necessary, the following:

    a. All existing, interim and final drainage patterns.
    b. Location of any diversion structures. If not applicable, indicate why not.
    c. Erosion control facilities (i.e., sumps).

    See Attached (page 33).
    See Exhibit 14.

(Reference SMARA 3706, 3710, 3502(b)(6), 3503(a)(3),(b)(1),(d) and (e), 2772(c)(8)(b))

---

29. Describe the reclamation procedures used to ensure adherence with the specified requirements for prime agricultural land reclamation. If not applicable, please explain why.

    Not applicable.
    The Specific Plan for Soledad Mountain - Elephant Butte and Vicinity does not recognize Soledad Mountain as agricultural land.

(Reference SMARA 3707)

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30. Describe the reclamation procedures used to ensure adherence with the specified requirements for other agricultural land reclamation. If not applicable, please explain why.

    Not applicable.
    Same as above.

(Reference SMARA 3708)

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31. Describe the reclamation procedures used to ensure adherence with the specified requirements for building, structure and equipment removal. Additionally, indicate on the map (Items 19 - 20) or on diagrams, as necessary, the following:

    a. Where all equipment, supplies and other materials will be stored.
    b. Identify which buildings, structures, and equipment will be: (1) dismantled and removed offsite and/or (2) remain onsite as consistent with the approved end use.
    See Attached (page 34).

(Reference SMARA 3709 and 3502(b)(5))

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32. Describe soil conditions. Elaborate on the reclamation procedures used to ensure adherence with the specified requirements for topsoil salvage, maintenance and distribution.
    See Attached (page 35).

(Reference SMARA 3711, 3707(b) and 3503(f) and (a)(2))

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33. Describe how contaminants will be controlled and mine waste will be disposed of (i.e., refuse, fuel storage, tailings, etc.), especially with regard to surface runoff and groundwater. Indicate on map (Items 19 - 20) or on diagrams, as necessary.

See Attached (page 35).

(Reference SMARA 3712 and 2772(c)(8)(a))

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34. Describe the reclamation procedures used to ensure adherence with the specified requirements for closure of surface openings. If not applicable, please explain why.

All water wells and monitoring wells will be properly abandoned or converted to alternative uses. Existing surface openings not destroyed in the mining process and located within the project area will either be fenced or will be destroyed and the surrounding area reclaimed.

(Reference SMARA 3713)

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35. Financial Assurances

Upon approval of the surface mining permit and reclamation plan and prior to commencement of surface mining operations, financial assurance(s) ensuring that reclamation is performed in accordance with the surface mining operation's approved reclamation plan must be submitted to and approved by Kern County. Financial assurances may take the form of surety bonds, irrevocable letters of credit, trust funds or other forms of financial assurances specified by the State Mining and Geology Board and Kern County.

Financial assurance instruments shall be made payable to "Kern County or the Department of Conservation." The financial assurance may also be made payable to additional public agencies, including federal agencies responsible for enforcing reclamation requirements over the mining operation. Financial assurances, along with a copy of the itemized reclamation cost estimate ***(based on the approved reclamation plan)***, must be submitted to Kern County for review and approval prior to commencement of mining operations. The amount of financial assurances required of a surface mining operation for any one year shall be adjusted annually to account for new lands disturbed by surface mining operations, inflation and reclamation of lands accomplished in accordance with the approved reclamation plan.

Golden Queen will post a bond, irrevocable letter of credit or other acceptable instrument which will guarantee completion of project reclamation to the satisfaction of Kern County and the State of California Department of Conservation.

The total proposed project will result in approximately 930 acres disturbed of which 419 acres will be reclaimed. The reclamation costs, expected after two years of project development, are itemized in Table 4.

RECLAMATION PLAN: (continued)

35. Financial Assurances (continued)

The permit application shall include a detailed, itemized estimate of reclamation costs. ***The assumption when preparing the estimate is that the mine operator is incapable of performing the work or has abandoned the surface mining operation, thereby resulting in the County or State hiring an independent contractor to perform the reclamation work.*** At a minimum, the detailed itemized estimate of all associated reclamation costs shall include, but is not limited to:

a. Costs of backfilling, regrading, slope stabilization, and recontouring.
b. Costs of revegetation and wildlife habitat replacement, including any monitoring.
c. Costs of final engineering design.
d. Costs of labor, including supervision.
e. Costs of mobilization.
f. Costs of equipment.
g. Costs of removal of buildings, structures, and equipment.
h. Costs associated with reduction of specific hazards, such as: heap leaching facilities, chemical processing ponds, soil decontamination, in-water slopes, highwalls, landslides, subsidence, or other mass ground failure.
i. Costs of drainage and erosion control measures.
j. Costs of soil tests.
k. Costs of haul road ripping and reseeding.
l. Costs of fencing.
m. Costs of liability insurance.
n. Costs of long-term stabilization, control, containment of waste solids and liquids.

(Reference SMARA 2773.1)

FOR OFFICE USE ONLY

Date Accepted: initial 6/5/96 revised 5/30/97 Received By: SFD

FEES

Case # 41 & 22 Map # 213 & 214 S.D. # 2
Floodplain C Zoning Ord. Sec. 19.14.030.G & 19.16.030.H
G.P/S.P Soledad Mtn/Elephant Butte Yes Consistent ___ Not Consistent
Element or Name

Case $600 *
Env'l $1100 *
Other $165

Reviewed By: Scott F. Denney, Associate Planner

Other ______

Total $1865 *

NOTES: EIR required for project pursuant to Section 21151.7 of CEQA. * = minimum fee. W/O # PP96238

Recpt # 159783

Attachments

STATEMENT OF RESPONSIBILITY

In consideration of approval by the Board of Zoning Adjustment of the County of Kern of this application for a Surface Mining Permit and/or Reclamation Plan, the undersigned, jointly and severally, hereby covenants with Kern County as follows:

(1) That all of the provisions of said permit and/or plan and any and all conditions appended thereto shall be faithfully performed and completed by the undersigned within the time therein provided, or within any additional time as may be allowed pursuant to the Ordinance Code of Kern County (Chapter 19.100).

(2) That the obligations of the undersigned to perform and complete the provisions of said permit and/or plan, including any and all conditions appended thereto, shall be subject to the provisions of said Ordinance Code which are incorporated herein by reference.

(3) That the place of performance by the undersigned of the covenants herein shall be the County of Kern, State of California.

(4) That any notice required to be given, or otherwise given to the undersigned may be by personal service or by ordinary United States mail, postage prepaid, and addressed to the agent, or any of the agents, named in paragraph 7 of the application filed by the undersigned.

Dated this 8th day of January, 1997.

R.W. Graeme

R.W. Graeme, Vice President of Operations

for Golden Queen Mining Co., Inc.
(Permittee(s) herein)

(Reference SMARA 2772.C.10)

PLANNING & DEVELOPMENT SERVICES DEPT.
TED JAMES, AICP, Director
2700 "M" STREET, SUITE 100
BAKERSFIELD, CA 93301
Phone: (805) 861-2615
FAX: (805) 861-2061

RESOURCE MANAGEMENT AGENCY
JOEL HEINRICHS, AGENCY DIRECTOR
Air Pollution Control District
Engineering & Survey Services Department
Planning & Development Services Department
Transportation Management Department
Waste Management Department

Dear Applicant for Development Project:

The California Legislature has passed a law that requires persons applying for development projects to review a listing of all hazardous waste sites. If the site of your proposed development project is included on the list of hazardous waste sites, then it shall be so noted. Please review the list of hazardous waste sites (enclosed) and sign the Verification Statement below. A copy of the law requiring this verification is also enclosed for your reference.

VERIFICATION STATEMENT

(Review of list related to hazardous waste sites)

I, Steven W. Banning, as applicant for a development project, have reviewed the lists of projects relating to hazardous wastes pursuant to Section 65962.5 of the California Government Code. The proposed site ~~(is)~~ (is not) included on the list.

Not Applicable
List (if applicable)

Feb. 28, 1996
Date

Signature
Steven W. Banning, President
Golden Queen Mining, Co., Inc.

FORM72.PDS (2/1/93)

13. **Current Land Use** - The primary land use within the project area consists of mineral exploration, mineral development and open space. The zoning within the project area is administered by the Kern County Planning Department. The zoning district for each of the areas in which Golden Queen has acquired an interest is shown below:

Township 11 North, Range 12 West, SBBM

Section 32	A-1 (Limited Agriculture)

Township 10 North, Range 12 West, SBBM

Section 5	A-1 (Limited Agriculture)
Section 6	A-1 (Limited Agriculture)
Section 7	A-1 (Limited Agriculture)
Section 8	A-1 (Limited Agriculture)
Section 18	A-1 (Limited Agriculture)

Township 10 North, Range 13 West, SBBM

Section 1	E (2-½) RS (Estate & Residential Suburban Combining)
Section 12	A (Exclusive Agriculture)

General Plan -The majority of the project area lies within the "Specific Plan for Soledad Mountain - Elephant Butte and Vicinity - South of Mojave," which was adopted by the Board of Supervisors of the County of Kern, State of California by Resolution 73-278, and subsequently, Resolution 73-485 was adopted by the Board of Supervisors on June 18, 1973 to correct clerical errors in the plan.

Legal Restraints - All surface and mineral rights have been obtained. Kern County has a specific zoning plan for Soledad Mountain - Elephant Butte and Vicinity, South of Mojave. All applicable recommendations and guidance contained in the Specific Plan will be incorporated in the design and operation of the proposed project. No private legal challenges are expected.

Five structures are located within the proposed disturbance area. Two of the structures were used as residences. One of the residences has been converted for use as an office. The other residence will be converted to office space at a later time. A former workshop will be used for storage. The remaining two structures will be demolished.

Recreation - The BLM properties in the vicinity of the Soledad Mountain Project consist of islands of land surrounded by private ownership. Most private owners have fenced, gated, or posted their lands restricting access. There are no identified BLM routes for off-highway vehicles (OHV) in the project area. There is limited hiking on the BLM-managed land and some unauthorized OHV use of the desert lands north and west of the project site. Hunting, shooting and other recreational uses are restricted in the project area by the private owners.

Soils - A soil inventory was conducted between August 1989 and May 1990, and in May 1995. The inventory (shown in Attachment B) identified four soil types in the project area, the characteristics of the soil types and the suitability of the soil and substrate material for reclamation. The four soil types are summarized as follows:

Arizo (104) - A sandy loam with 40 percent gravel and small stones to 50 percent stones and cobbles with depth. The soil is loose and friable with good permeability and high wind erosion potential and soil salvage is limited by coarse fragments, texture and nutrient status. Arizo soil is generally located on alluvial toe slopes and fans around the base of Soledad Mountain.

Cajon (114, 116) - A light brown to brown, loose friable, gravelly loam to loamy sand with fine roots containing 15 percent gravel. Gravel content decreases with depth. The soil permeability is very good and wind erosion potential is very high, and salvage is limited due to coarse fragments. Cajon soils are located on alluvial fans and plains with 0 to 4 percent slopes to the west and south of the base of Soledad Mountain.

Rosamond (172) - A reddish to light brown, sandy loam to gravelly sandy loam with moderately slow permeability and high erosion potential. The soil contains 10 percent gravel and is located on the flat areas to the west of Soledad Mountain with slopes of 0 to 2 percent.

Torriorthents (185) - Weathered rock outcrop and shallow to deep residual soils from host rock on the mountain which are not of any one classification series. Soils consist of clay loam to cobbly, loamy sand with up to 60 to 70 percent rocks and cobbles, with permeabilities ranging from moderately slow to moderately rapid, and moderate erosion potential.

Soils on and around Soledad Mountain have been mapped by the United States Soil Conservation Service (SCS, 1981). A general soil map of the site by Bamberg Associates is included in Attachment B. In spite of steep slopes on the mountain, few evidences of slope or soil instability in the form of slides, soil creep or solifluction lobes have been identified.

Vegetative Resources - Plant species found at the project site on Soledad Mountain are typical for the western Mojave Desert area. The plant species are hardy desert shrubs and sub-shrubs which generally grow year round when moisture is available. Annual species which are fall germinating and grow throughout the winter and spring seasons are also present. The major vegetative species at the site have been summarized by Bamberg and Hanne, 1995 (Attachment B).

The lower slopes and alluvial fans in the project area contain a desert shrub/scrub type vegetation with creosote bush the dominant plant species and secondary cover consisting of burrowbush, aster, goldenhead and joint-fir. The plant cover on the lower slopes ranges from 20 to 26 percent and averages about 23 percent.

The mid-slope and upper slope areas of the site are sparsely vegetated by a mixed shrub community with plant species, including hopsage, winterfat, buckwheat and cattle spinach. The scant vegetation on the upper slopes is fairly diverse and varies widely depending on the exposure and soil moisture conditions, as well as previous disturbances, such as mining and burning. Cover in the mixed shrub community of the mid and upper slope ranges from 10 percent in burned areas to 49 percent in other areas.

There were no threatened or endangered species identified on the project site. The Joshua tree, beaver-tail cactus and golden cholla cactus which have been identified on the project site are salvage protected under the California Desert Native Plants Act and will be handled appropriately.

Wildlife Resources - The wildlife species present at the project site are typical for desert habitats. General wildlife populations are low due to the arid climate and alteration of habitats by historical mining, recreation and fires. Surveys of the wildlife species present at the site were conducted by Bamberg and Hanne, 1995 (Attachment B).

The presence of mammals on the site was confirmed by either observation or other signs, such as burrow, scat, tracks or skeletal remains. Predators that inhabit the site include the coyote, bobcat, ring-tailed cat, gray fox and possibly badger. Predators use the site as part of their hunting territory and some may den on the mountain during breeding season.

Small animals on the site, which are typical of the desert scrub habitat, include antelope ground squirrel, jackrabbit, cottontail rabbit, kangaroo rat, woodrat and several species of small rodents. Bird species common to the site include the raven, rock dove, violet green swallow and sparrows. Large birds include the golden eagle, turkey vulture, red-tailed hawk and peregrine falcon. Reptile species common in the study area include the side-blotched lizard, desert iguana, gopher snake and Mojave rattlesnake.

Four animals known to exist in this type of habitat are of possible concern from the threatened or endangered species lists for the federal and California agencies. These species are Townsend's big-eared bat, pallid bat, the desert tortoise and the Mohave ground squirrel. Surveys were conducted for each species and none were found, as noted in Bamberg and Hanne, 1995, and Bamberg, 1997 (Attachment B). A second survey for bats was conducted in August and October 1996 (Attachment B). At least two unidentified species of bats were observed in the project area. A winter bat survey was conducted in early January 1997 (Attachment B), to determine if bats are hibernating in the mine workings. No indication of bat hibernation was found. Therefore, these species are not considered threatened or affected by the proposed action.

Surface Water - The site is located in the northern portion of the Antelope Valley Groundwater Basin. The average annual rainfall at the site is approximately 6.14 inches. Surface drainage at the project location is greatly influenced by the site topography, which varies from steep, rugged hillsides on the upper elevations of Soledad Mountain to a gently sloping desert floor on the flanks. Drainage in the project area on the north side of Soledad Mountain is through a series of deeply incised gullies and channels which are primarily fed by precipitation from winter storms and infrequent summer thunderstorms. Runoff from the project area is channeled to the north, northwest and northeast of Soledad Mountain, eventually draining north and east to the Gloster and Chaffee Hydrologic Areas of the Antelope Hydrologic Unit.[1]

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[1] Regional Water Quality Control Board - Lahontan Region, 1994, *Water Quality Control Plan for the Lahontan Region.*

Surface water beneficial uses identified within the hydrologic area include municipal, agricultural, groundwater recharge, water contact recreation, non-contact recreation, warm freshwater habitat and wildlife habitat.[1] Minor wetlands have been reported well outside the project area with similar beneficial uses.

The project area does not contain any surface waters, including springs, seeps or intermittent streams. The nearest intermittent stream is located approximately three miles to the west of the project site. Oak Creek, an intermittent stream which is one of the primary sources of recharge in the area, is located approximately five miles west of the project site. All precipitation which does not evaporate will percolate into the Antelope Valley groundwater (the designated receiving water). No site-specific information on water quality surface flow is available.

Groundwater/Water Supply - The site is located in the northern area of the greater Antelope Valley Groundwater Basin in the Chaffee subunit[2] or in the Gloster subunit.[3] Limited amounts of groundwater may occur in the fractured crystalline and volcanic bedrock that forms Soledad Mountain, although groundwater has not been noted in the exploration boreholes or the mine shafts. The primary aquifer in the area is the alluvium which fills the areas between bedrock outcrops. Groundwater recharge is primarily from the Tehachapi Mountains via intermittent streams, such as Cache Creek and Oak Creek. The alluvial aquifer is generally poorly consolidated to unconsolidated and composed of silt, sand, gravel and boulders. Beneficial uses of the groundwater basin include municipal, agricultural, industrial and freshwater replenishment.

Available data indicates that total dissolved solids in the groundwater of the area ranges from approximately 200 to 500 mg/l.[4] The dominant anions appear to be

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[2] Ibid.

[3] Duell, Lowell, F. W., Jr., 1987, *Geohydrology of the Antelope Valley Area, California and Design for a Groundwater Quality Monitoring Network*. U.S. Geological Survey, Water Resources Investigations Report 84-4081, 72 pp.

[4] Water, Waste & Land, Inc., 1990, *Hydrology Study Summary for the Soledad Mountain Project.*

sulfate and bicarbonate with concentrations on the order of 100 to 200 mg/l. Chloride concentrations are in the range of 10 to 40 mg/l. Calcium is the predominant cation with concentrations generally ranging from 50 to 100 mg/l followed by sodium with concentrations on the order of 40 to 50 mg/l. Arsenic concentrations in groundwater in the vicinity of Soledad Mountain often exceed the maximum contaminant level of 0.05 mg/l.

As reported by Water, Waste & Land, Inc., 1990, water wells in the area are mostly very low yield wells, on the order of 20 to 40 gpm and are bottomed at less than 300 feet. A water supply well drilled for the project was pump tested at multiple rates from 500 to 750 gpm. One well located one to one and one-half miles northwest of the project site in Section 36, Township 11 North, Range 13 West, known as one of the Gillis wells and designated #25 by Water, Waste & Land, Inc., reportedly tested at a rate of water withdrawal up to 750 gpm. The thickness of alluvium at location #25 was greater than 630 feet, with effective thickness below the water table between 250 and 350 feet. Other wells, a few miles north and west of Soledad Mountain, reportedly tested at rates of 300 gpm or more, and Mojave Public Utility District wells in Section 22, Township 11 North, Range 12 West tested at rates from 250 to 1,000 gpm. A groundwater elevation map, constructed from 1990 groundwater data, indicates a gradient generally from west to east, with local north to south components.

Meteorology - The proposed project is located in Kern County in the Mojave Desert Air Basin. The Mojave Desert Air Basin includes some of the hottest and driest portions of California. The air basin is separated from the coastal regions by two mountain ranges, which provide a climatological boundary. Relative humidity in the desert during summer is very low, with humidities below 10 percent common in the hottest part of the day.

Temperatures can exceed 100o degrees Fahrenheit for 60 to 70 days per year, between May and September, with almost no rainfall. Seasonal differences are noted principally by differences in temperature with hot, dry summers and mild, dry winters. Diurnal variations of approximately 30 degrees Fahrenheit can occur throughout the year. Wintertime temperatures are cool, with highs in the 50's during the day, and lows dropping into the 30's or less at night.

Annual average rainfall in Mojave, located approximately five miles northeast of the project site, is 6.14 inches per year, and in Palmdale, located approximately 25 miles south, is 6.95 inches per year. Table 2 shows monthly rain and temperature information from nearby locations. Onsite meteorological data, collected between October 1989 and August 1991, indicates that typical winds at the proposed project site are out of the northwest, representing flow from the San Joaquin Valley.

Topography - The topography of the western Mojave Desert in the area of the site varies from relatively flat alluvial areas to steep mountains. Elevations vary from approximately 2,000 feet above mean sea level in the flat alluvial-covered areas to over 5,000 feet in some of the mountainous areas. Soledad Mountain is a volcanic peak approximately three miles in diameter. The topography of the project area consists of rugged outcrops and ridges with intervening drainage which grade to alluvial slopes and flat areas on the flanks of Soledad Mountain. The elevation of the project area varies from 4,190 feet above mean sea level at the peak of Soledad Mountain to approximately 2,700 feet above mean sea level along the northeast flank.

Surface disturbances which predate the proposed project include the original Gold Fields of South Africa mines as well as other shafts, trenches, tailings, dumps, open stopes, adits and other facilities associated with the numerous small claims that have historically been worked throughout the project area. Approximately 215 acres of existing surface disturbance are located within the project area.

Cultural and Historical Resources - Soledad Mountain was the scene of previous mining efforts. There were three main periods of development. From approximately

1894 to 1910, there was major prospecting and development. The Karma, Queen Esther and Echo mines were in operation with mills onsite. The Eagle Group and Bobtail Claims were operating, but the ore was taken to offsite mills. During the Depression years until 1942, there were numerous small-scale mining efforts and all ore was hauled to Tropico for milling. In recent years, there has been a limited amount of mining and exploration.

The early operations involved the establishment of small living groups on Soledad Mountain. The remains of buildings, mining equipment and residences are evident on the property. Phase I Archaeological Surveys of the Golden Queen Mine Project Area, Mojave, Kern County, California and Phase II Test Excavations and Determinations of Significance on Soledad Mountain, Mojave, Kern County, California for private property within the subject area were prepared by W & S Consultants. A Class III Inventory of the Golden Queen Mine Project Area, Mojave, Kern County, California was prepared for all federal lands within the project area by W & S Consultants. The archaeological studies are treated as confidential information and will be distributed accordingly.

As a result of the archaeological investigations, one prehistoric site and 10 historical sites were identified on private property, one historical site was identified and two previously identified sites were reviewed on federal land, and one historical site was identified on both private and federal land within the project boundaries. Mitigation for these sites will be incorporated in the EIR/EIS document.

Visual Resources - The landscape characteristics, or form, of the project area consist of broad, relatively flat alluvial areas with steep hills/mountains rising above the desert floor at various locations. Soledad Mountain, the project site, is a volcanic peak approximately three miles in diameter rising more than 1,000 feet above the surrounding desert. The visual line, the path the eye follows, is predominately horizontal. The flat, broad valleys allow long distance views and the horizontal line results from the contact of the ground and vegetation with the sky.

The line is broken by vertical changes such as Soledad Mountain. The landscape color consists of browns, tans and grays. Vegetation colors are generally browns, greens, yellows and tans. Because of the limited vegetation cover, landscape colors meld with vegetation colors from distant view points.

The significant majority of the visitors to the project site will be mine employees, contractors and other mine-related personnel. Access to the actual mining operations will be limited by the company for safety and security reasons.

The project area is visible from major travel routes along State Routes 14 and 58 passing through the Mojave area to the north and east of the project site. The project area is also visible from a county road, Silver Queen/Mojave-Tropico Road, which provides access to the project site and borders the north and west sides of the project site. The project area is in the foreground from the local road and in the background from the state highways.

16.b. The 1995 level of traffic on State Route 14 at Silver Queen Road was approximately 15,000 average daily trips (ADT). The ADT on Silver Queen Road in 1995 was 410. Transport of overburden materials for sale is expected to add 70 ADT's to traffic on State Route 14 and Silver Queen Road. Approximately 100 trucks per month (seven ADT) will deliver supplies to the site. Approximately 412 ADT will be added during construction, and 368 ADT will be added while in normal operations from workers traveling to and from the facility.

All haul roads onsite will be watered to reduce dust emissions. Because of the varying lengths of the roads, determination of ADT for onsite vehicles is very difficult.

17.a. The mined ore will be trucked to a four-stage crushing plant where it will be crushed to nominally minus 10 mesh particles. The crushed ore will be agglomerated with cement and barren solution and stacked on the heap leach pad. Precious metals will be leached from the ore by a dilute cyanide solution. The pregnant solution will be contained inside the heap until it is pumped to the Merrill-Crowe processing plant to recover the precious metals.

Spent ore, which will be left on the heap leach pad, will be rinsed until the following general requirements of the Lahontan Regional Water Quality Control Board have been met:

- Weak Acid Dissociable (WAD) cyanide in effluent rinse water less than 0.2 mg/l.
- Contaminants in any effluent from the processed ore which result from percolating meteoric waters will not degrade surface or groundwater.

The ore on the heap leach pad will be neutralized, graded, resoiled and seeded. Neutralization of the heap leach pile will be accomplished by rinsing to reduce cyanide levels to meet the WDR requirements to be issued by the Lahontan Regional Board prior to operation. With agreement from the Lahontan Regional Board, the time required for neutralization may be reduced by supplemental destruction of cyanide achieved by chemical, biological or other acceptable and demonstrated technologies. The supplemental technology that may be best suited for use at the Soledad Mountain Project will depend upon specific site conditions at the time of neutralization. Sampling and laboratory testing will be conducted to evaluate the neutralization process at the conclusion of heap rinsing. Once neutralization of the heap leach pile has been completed, all process waters and rinse solutions will be neutralized and disposed of by either evaporation or application to land in accordance with RWQCB requirements.

After rinsing and neutralization is complete, the top of the heap will be graded with a slight crown to reduce the amount of precipitation which will be retained on the heap and percolate through the spent ore. The side slopes of the heap leach pile will be dozed to a 2:1 (horizontal to vertical) and the down slope will be dozed to a

2.5:1.0 (horizontal to vertical) finished slope. Some benches will be retained on the slope face to facilitate drainage and erosion control.

24. The overburden piles will be constructed at about 1.5:1.0 (horizontal to vertical) working slopes. This slope is the approximate natural angle of repose for this material. During the operating life of the project, the public safety will be protected by keeping the toes of these slopes back from the property line a sufficient distance to prevent any potential slope failure from damaging adjacent property. At the close of operations the overall slope of the overburden piles will be reduced to 1.8:1.0 (horizontal to vertical) to assure long-term stability of the piles.

Public safety will be enhanced after reclamation when the spent ore heap will be rough graded and contoured to reduce slopes. Stabilization of the heap landform will be achieved through regrading and slope reduction. The decommissioned and salvaged facilities sites such as offices, shops, laydown and boneyard sites will be ripped, contoured and seeded. After decisions have been made as to which roads will be abandoned and reclaimed, culverts will be removed and the roads will be graded for sloping and drainage reestablishment. Safety berms and ditches will be graded and filled to create contours that blend with the landscape. The compacted surfaces of the roads will be ripped, and water catchment basins established where possible. At the completion of reclamation, fencing will be left around areas where beneficial for natural vegetation and/or in restricted areas to block access in order to minimize hazards to public safety. Public health will be protected by neutralizing the cyanide solution when the leach process is complete and before revegetating the heap. Post-closure activities on the site should not have any adverse health impacts.

Permits relating to public health and safety required during operations include:

1) Bureau of Alcohol, Tobacco and Firearms Permit for purchase, storage or transportation of explosives.

2) State Water Resources Control Board Regional Water Quality Control Board Storm Water Permit.
3) State Water Resources Control Board Regional Water Quality Control Board Waste Discharge Permit.
4) California Occupational Safety Health Administration Construction Permit.
5) California Occupational Safety Health Administration Explosive Blaster's License.
6) Kern County Fire Department Hazardous Materials Business Plan.
7) Kern County Fire Department Hazardous Materials Inventory.
8) Kern County Fire Department Fire Protection Plan.
9) Kern County Air Pollution Control District Authority to Construct.

25. Plant species found at the project site on Soledad Mountain are typical for the western Mojave Desert area. The plant species are hardy desert shrubs and sub-shrubs which generally grow year round when moisture is available. Annual species which are fall germinating and grow throughout the winter and spring seasons are also present.

No threatened or endangered species have been identified on the project site. No wetlands, marshes or other environmentally-sensitive habitat areas have been identified on the project site. There is no "specimen tree" or other tree with historic value located on the project site.

Except for approximately 221 acres of disturbed area covered by the open pits, reclamation activities at the site will minimize the overall impacts to vegetation.

- A revegetation plan for the Soledad Mountain Project has been prepared by Bamberg Associates.
- Seeds will be collected from plants onsite for use in conjunction with growth media for revegetation of disturbed areas. Test plots will be constructed during the first two years of operation or when areas become available to evaluate the

success of various revegetation techniques and determine the best technique for use in final reclamation and revegetation of the project site.

- Test plots will be established to evaluate reclamation of disturbed areas with native shrubs and other plant species.

The wildlife species present at the project site are typical for desert habitats. General wildlife populations are low due to the arid climate and alteration of habitats by historical mining, recreation and fires. Surveys of the wildlife species present at the site were conducted by Bamberg and Hanne, 1995 (Attachment B). No threatened or endangered species have been identified on the project site.

Four animals known to exist in this type of habitat are of possible concern from the threatened, endangered or special concern species lists for the federal and California agencies. These species are Townsend's big-eared bat, pallid bat, desert tortoise and Mohave ground squirrel. Surveys were conducted for each species and none were found, as noted in Bamberg and Hanne, 1995, and Bamberg, 1997 (Attachment B). A second survey for bats was conducted in August and October 1996 (Attachment B). At least two unidentified species of bats were observed in the project area. Therefore, these species are not considered threatened or affected by the proposed action.

Impacts to wildlife habitat by the surface disturbance associated with construction and operation of the project will be minimized by disturbing only the areas necessary to construct and operate the project.

The boundaries of the area required for construction and operation will be clearly marked to prevent unnecessary disturbance. Off-road vehicle traffic will be restricted. These steps will aid in preserving the biologic diversity of the site.

26. Exhibit 4 presents a conceptual plot plan of the facilities proposed at the project site showing the proposed locations of the open pit mines, the overburden piles, the heap leach pad and a potential heap leach pad site.

The open pit mining areas will be excavated in volcanic rock. The pit walls will have 20-foot wide safety benches at 60-foot vertical intervals. The resulting overall slope of the pit walls, based on this design, will be 55 to 63 degrees, as appropriate for the area. John Abel Jr., Ph.D. has conducted a slope stability analysis of this design, and his report and two supplements are included as Attachment C. Dr. Abel is an internationally recognized expert in open pit mine stability and a Colorado registered professional engineer, however, he is not a California registered professional engineer. His work has been reviewed by Don Poulter, a California registered professional engineer.

For his review, Dr. Abel directed collection of physical samples of the various rock types and supervised laboratory testing of uniaxial and triaxial compression and direct shear. Over 800 measurements of fractures were made along nine detail lines of fracture mapping covering the major rock types. Dr. Abel utilized a conservative limiting equilibrium slope analysis of the planned 55 degree overall slope angle. The natural fractures provide the potential failure paths for pit wall slope failure. Two modes of potential failure were analyzed: 1) plane shear down a single joint set dipping out of a high wall and 2) wedge shear for the intersection of two joint sets that plunges out of a pit high wall at an angle less than the measured friction angle. The slope stability includes both gravitational loading and the added force developed by the maximum credible earthquake.

The Soledad Mountain topographic high, and the steeply dipping jointing have apparently served to lower the water table in this area of minimal rainfall. Previous underground mining has also provided additional drainage for Soledad Mountain. On this basis, factors of safety for dry 55 degree overall slope conditions have been calculated for the planned pit slopes in the five rock units. The 99.9 percent confidence level factor of safety calculations range from a low of 2.57 to a high of 12.09 under gravitational loading, and from a low of 1.43 to a high of 6.57 under the maximum credible earthquake loading. Dr. Abel concludes that these "factor of safety calculations indicate that all planned Soledad Mountain Project slopes will be stable." Dr. Abel's analysis also indicates that slopes as steep as 63 degrees will be stable in the open pit mining area and these steeper slopes may be used in selected mining areas.

An evaluation of the potential influence of topographic amplification of seismic forces on the stability of the pit slopes was prepared and it was determined that no impact is likely (Attachment C).

Exhibit 6 is a plan map which shows the locations of cross sections made through the current planned mining areas. Exhibits 7 through 11 present cross sections A - A', B - B', C - C', D-D' and E-E', which are sections at various intervals through the facility.

As designed, the greatest depth of mining, approximately 1,300 feet, is represented by the difference between the original ground surface and the projected bottom of the open pit mining area. The actual open pit profile may differ from those depicted on the sections due to ore exposed during mining and the prevailing economic conditions. The approximate maximum linear dimensions of the mine area will be 5,600 feet in length and 4,900 feet in width.

The overburden piles will be built at the natural angle of repose of the materials, approximately 1.5:1.0 (horizontal to vertical) slopes. During reclamation of the site, the overall slope of the overburden piles will be reduced to 1.8:1 (horizontal to vertical). Growth media, if any, will be removed from the entire area of the final footprint at the start of the project to prevent the growth media from being lost.

Slopes will be shaped for reclamation depending on the type of material, erodibility and configuration left by the mining process. The slopes of the final pit walls will be 55 to 63 degrees, as appropriate for the area (Exhibit 12). The down slope portion of the heap leach will be 2.5:1.0 (horizontal to vertical), and the side slopes will be 2.0:1.0 (horizontal to vertical) (Exhibit 13). The slopes of the overburden piles will be graded to 1.8:1.0 (horizontal to vertical) (Exhibit 12). After closure, the pit high walls will be left in a safe and stable configuration, subject to natural processes.

27.a. The vegetation on and around Soledad Mountain is a desert shrub-scrub type adapted to a climate of low, unpredictable precipitation and hot, but variable, temperatures. The adaptations of the native species to the climate include a quick response to rainfall and extended dormancy periods. The dominant vegetation type on the lower alluvial fans and flats is a creosote bush shrub-scrub with widely scattered Joshua trees. The vegetation on the mountain slopes is a mixed shrub-grass type dominated by species adapted to rocky substrates and cooler conditions. These species are common in desert mountain ranges and have affinities to the Great Basin deserts to the north.

Plant communities on portions of Soledad Mountain are extensively disturbed by previous mining activities and mineral exploration. In addition, nearly all the lower slopes, sides and top of the mountain have been altered by frequent burns which change and reduce the shrub cover and increase annual grasses and weeds. Lower plant productivity is the result. There are a few rare areas of undisturbed vegetation on the higher ridges among rock outcrops where burns have not occurred. Sheep have recently grazed in the lower mountain slopes and in the protected valleys and canyons. This grazing was heavy in places in 1990, and had caused a reduction in plant cover.

The Soledad Mountain project site contains plant species (floristics) typical for the western Mojave Desert in Antelope Valley. The plant species are hardy desert shrubs and sub-shrubs which grow year round when moisture is available. Fall-germinating, annual species that grow throughout the mild winter and spring seasons are present. Some shrubs (such as joint-fir, spiny hop-sage and shadscale) grow only at higher altitudes this far south. They are more widely distributed in the Great Basin area to the northeast. We believe this is a result of the cooler temperatures, higher altitude and the steep slopes at Soledad Mountain compared to the lower regions of the Mojave Desert region. Cactus, trees and tall shrubs are not present onsite, with the exception of the Joshua tree and beaver-tail and golden cholla cactus. There is a lack of well-defined drainages or washes, and the type of vegetation characteristic of these washes.

A juniper zone is not present due to the volcanic substrate and the unfavorable dry, warm climate.

There were no threatened or endangered plant species expected or observed on the project site. There were also no unique or different vegetation or habitat types on the site.

27.b. Test plots will be utilized to determine the best combination for enhancing revegetation. Test plot locations will be identified and provided prior to establishment. Table 3 shows the preliminary rate of application for the seed mixture.

27.c. Reseeding will take place at any time of year when the soil is first graded and the surface is loose and friable. This allows the seed to be incorporated into the soil, and germination to take place when the next favorable weather period occurs. Tests of sowing seed at different times of years were not successful, nor did any period, such as fall/winter or spring sowing prove more successful. The germination requirements of a variety of local native species is not well known. Some species germinate after summer rains, some in the fall and others in the late winter or spring period. Seeds can and do remain dormant, but viable, for extended periods of time, as long as 20 years.

27.d. Soil analysis has been conducted. See Attachment B, page 12.

27.e. Table 3 reflects how seeding has been conducted in revegetation testing at other desert mine locations. Rates of application are listed as a percentage of locally available endemic plant species. Percentages reflect local abundance of plant species in the vegetation sampled during the baseline studies. If possible, two banks of seeds will be collected and kept separate; one on the hills and slopes of the mountain, and the other on the lower slopes and flats around the base. These two mixtures will be selectively applied during testing and final reclamation depending on the nature of the reclaimed surfaces.

The seed collected in other revegetation programs has been a mixture of local endemic species of available seed crops. Native seed collected has been on an opportunistic basis, that is, during years of good seed production, seed is collected of all available species. The plant species listed in Table 3 are those known to occur in abundance on Soledad Mountain. This list is not exhaustive, and seed collected during the life of the mine may include minor amounts of local species that produce abundant seed, depending on the year.

Another aspect of the revegetation testing programs used seed available in the upper layers of soil under shrubs and in drainages and depressions. Seeds of desert plant produced in good years fall to the ground and are blown or washed into protected surface locations. These seeds stay viable for long periods of time (up to and exceeding 20 years) and germinate when conditions are favorable. The upper layer of soil and plant debris containing seeds was hand collected and applied to soil surfaces being reclaimed. This store of seed in the soil is always available, even in dry years when little fresh seed is produced. This method of seed collection has produced germination of over 25 species of native plants in recent revegetation trials.

27.f. Optimal time to plant is immediately after the surface has been prepared for revegetation. Seeds sown shortly after surface preparation, while the soil is loose, are easily covered and will remain dormant until sufficient rainfall is received.

The survival and growth of transplanted specimens are generally more successful in the early to late fall period. This allows the plant to become established during the cooler and more moist winter months.

27.g. Irrigation to promote germination is not recommended, since subsequent weather may not be favorable for continued survival and growth.

27.h. Plant protection has not proved to be necessary because of the general absence of large grazing mammals on Soledad Mountain. Rabbits have been observed to graze on new seedlings if these are more succulent than the surrounding vegetation. Long-term monitoring of revegetation test plots at other California locations have not shown rabbit grazing to have a detrimental effect on revegetation success.

27.i. Performance standards are generally determined as a percentage of comparable natural vegetation. The three parameters for comparison are: 1) canopy coverage, 2) density and 3) diversity as species richness. Newly established revegetation on reclaimed mine sites is successional and has a different species composition than in the older, mature natural vegetation. The values proposed in the Reclamation Plan (Attachment D) were 35 percent of the cover, 20 percent of the density and 30 percent of the diversity of the natural vegetation.

The natural vegetation can vary by as much as 400 percent as measured during the baseline biological surveys on Soledad Mountain (an average of 20 percent cover in 1990, after a series of drought years, and an average of 80 percent in 1995, after three years of favorable rains). The monitoring program in the Reclamation and Revegetation Procedures (Attachment D) recommends that the comparison be conducted using concurrent and comparable monitoring in the same year on undisturbed sites on the mountain and in the reclaimed areas using linear transects. Should a natural disaster occur which disturbs all possible comparable monitoring sites, an amendment to the Surface Mining Reclamation Plan could be made which would allow the use of comparable analysis to the 1990 or 1995 baseline surveys. Baseline surveys have established a wide range of these vegetation parameters. This method of concurrent sampling was tried at another mine site, and was an effective and fair means of establishing the values for reclamation performance standards for successful revegetation.

28. Surface drainage at the project location is greatly influenced by the site topography, which varies from steep, rugged hillsides on the upper elevations of Soledad Mountain to a gently sloping desert floor on the flanks. Drainage in the project area on the north side of Soledad Mountain is through a series of deeply incised gullies and channels which are primarily fed by precipitation from winter storms and summer thunderstorms. Runoff from the project area is channeled to the north, northwest and northeast of Soledad Mountain, eventually draining to the Chaffee Hydrologic Area of the Antelope Hydrologic Unit to the west (RWQCB, 1994).

A Site Drainage Plan (Attachment E) has been developed in accordance with Kern County regulations. The Site Drainage Plan has been designed for the 100-year, 24-hour storm event as required by local ordinance, which is greater than the 20-year, one-hour storm event design required by SMARA. The Site Drainage Plan includes the onsite roads, crushing site, process plant site, maintenance site, office site, overburden material piles and site drainage. Portions of the crushing, process, maintenance and office sites will involve engineered fill. These areas are part of the detailed project design engineering which is currently in progress and will be available at a later date to supplement the information presented in this document.

The Site Drainage Plan provides for minimized land disturbance, erosion control through energy dissipation and direction of storm water runoff, away from processing and other mine facilities to sedimentation catchment ponds. The facility is designed as a zero discharge facility. The catchment ponds which will be planted with native vegetation, which will encourage the percolation of storm water into the soil for groundwater recharge.

31. All portable and salvageable structures will be relocated or removed from the site. Permanent structures constructed for the project will be dismantled and removed or converted to another approved continuing use. All foundations will be broken up and buried under at least one foot of clean fill material. All surplus materials, storage containers and trash will be transported to a landfill authorized to accept this material. The remaining waste products and all fuel and similar materials will be removed from the site and disposed of according to state and federal regulations. Any soil material contaminated by regulated waste materials will be disposed of in accordance with state and federal requirements.

All water wells and monitoring wells, if and when abandoned, will be abandoned according to state and county requirements.

32. Four soil types identified on and around Soledad Mountain will be disturbed by the project. Two of the types will be collected for use as growth media. Arizo soil is located in the area of the proposed heap leach pad and other facilities on the north side of the mountain. The top six inches of this material is referred to as growth media by Bamberg Associates in Attachment D because of its seed content, not because of any superior ability to support growth. The proposed open pit mine and overburden piles are to be located in areas covered by Torriorthents. The Torriorthents soil is composed of greater than 50 percent rocks and cobbles and is, therefore, not subject to salvage according to SMARA.

Up to six inches of Arizo and Cajon type soils (approximately 200,000 cubic yards) will be removed from the heap leach pad areas and stockpiled as growth media for use in reclamation and revegetation. Exhibit 4 shows proposed locations for storing growth media. The piles will be approximately 15 feet high. However, Bamberg

Associates describes successful revegetation of overburden materials and heap leach materials without application of growth media.

33. The Site Drainage Plan provides for minimized land disturbance, erosion control through energy dissipation and direction of storm water runoff away from processing and other mine facilities to sedimentation catchment ponds. The facility is designed as a zero discharge facility. The catchment ponds which will be planted with native vegetation, which will encourage the percolation of storm water into the soil for groundwater recharge.

For general reference to the design concept of the proposed pads, the term modified valley-fill heap leach can be used to describe them as dedicated heap leach pads with internal solution control. The heap leach pads will be designed as side hill leach pads with perimeter dikes supporting the toe of the heaps. The dikes will also provide solution storage capacity. Berms will be constructed around those portions of the heap leach pads not enclosed by the perimeter dike. This design was selected for the following reasons:

- The topography is relatively steep with respect to heap stability on a synthetic liner. The toe dike supporting the heap enables the heap to be constructed over the natural topography rather than having extensive earthwork to reduce the pad grade for a stable, unsupported heap.
- One of the most important attributes of the valley-fill concept is the lack of solution ponds exterior to the leach pad. The toe dike will create a pond area for in-heap management of the solutions, runoff from precipitation and retention of the design storm event.
- The lack of barren and pregnant solution ponds minimizes evaporation and hazards to wildlife.

The dike is designed, including allowance for the 100-year storm event, to be no more than 25 feet in height, with the crest serving as an access road. The pad area will be divided into cells by internal berms which will be located such that the storage capacity of the individual cells created by the berms is less than 50 acre-feet prior to the stacking of ore. Based upon this criterion, the dike will not be subject to the jurisdiction of the State of California Department of Water Resources, Division of Safety of Dams (DSDD).

The pad liner system will be constructed as a two-stage composite liner with two distinct sections:

- Down slope portions of each heap leach pad cell will contain standing process solutions and will be lined with an 80 mil High Density Polyethylene (HDPE) top liner and a bottom liner consisting of 12 inches of bentonite amended soils installed with a permeability no greater than 10^{-6} cm/sec. Installed within the amended soil layer will be a leachate collection and recovery system (LCRS) consisting of a geotextile wick drain system that will direct any intercepted liquid to a sampling sump.
- Upslope portions of each heap leach pad cell, which will not contain standing fluid, will be lined with an 80 mil HDPE top liner located directly on top of the 12-inch thick amended soil base installed using bentonite amendment to a permeability no greater than 10^{-6} cm/sec.

This liner system will be in compliance with design requirements for a Group B waste under California Code of Regulations, Title 23, Chapter 15 guidelines. Based on test data, the ore placed on the pads will be classified as a Group B waste during operations and a declassified waste at closure. Final design details will be incorporated in the Report of Waste Discharge which will be filed with the Lahontan Regional Water Quality Control Board.

Initially, three groundwater monitoring wells will be located near the dike outside leach pad number 1, cells 1 and 2. One of the wells will be "up-gradient" from the leach pads. The remainder of the wells will be "down-gradient." The triangular pattern will allow three-point analysis of the local hydraulic gradient. Intra-well and lateral-well statistical comparisons are necessary for constituents of concern. Regionally, "up-gradient" is northwest of Soledad Mountain. Monitoring wells will be added as the heap leach cells are extended to the east and to the additional heap leach pad locations.

Vadose zone monitoring will be done using lysimeters. The lysimeters will be placed under the fluid storage portion of the cells to detect any potential leakage through the liner system. These vadose zone monitors will be placed directly beneath the liner deep enough to exclude condensation moisture resulting from the weight of ore being stacked on the leach pads.

Chemicals will be stored in closed, weatherproof containers in secured, open air or well-ventilated storage areas. All containers will be properly labeled and stored in conformance with state and federal regulations, the Spill Prevention Control and Countermeasure Plan and Golden Queen safety policy. Sodium cyanide in solid form will be delivered to the site in a sealed tanker truck or in sealed 3,000 pound tote bins. The reagent will be off-loaded from a tanker truck by circulating a caustic soda and water solution through the truck tank until the solid sodium cyanide is dissolved and removed from the tanker. Cyanide solution is made from the tote bins by emptying them into an agitated mixing tank containing an alkaline solution. These flow bins are equipped with a bottom-mounted slide door. This slide door only opens over the appropriate mixing tank which prevents accidental discharge and direct operator contact.

Alternatively, sodium cyanide may be received in liquid form as a 30 percent liquid solution. The solution will be off loaded from the truck by pumping the solution from the tanker into the solution storage vessel.

The construction workforce required will be approximately 250 workers. A permanent workforce of about 230 employees, distributed among four crews working 24-hours per day, seven-days per week, will be expected during operation. Golden Queen will provide portable toilet units accessible from all operational areas and will install a septic system designed to accommodate the centralized office and support areas. Permits for the septic systems will be obtained from the Kern County Environmental Health Services Department.

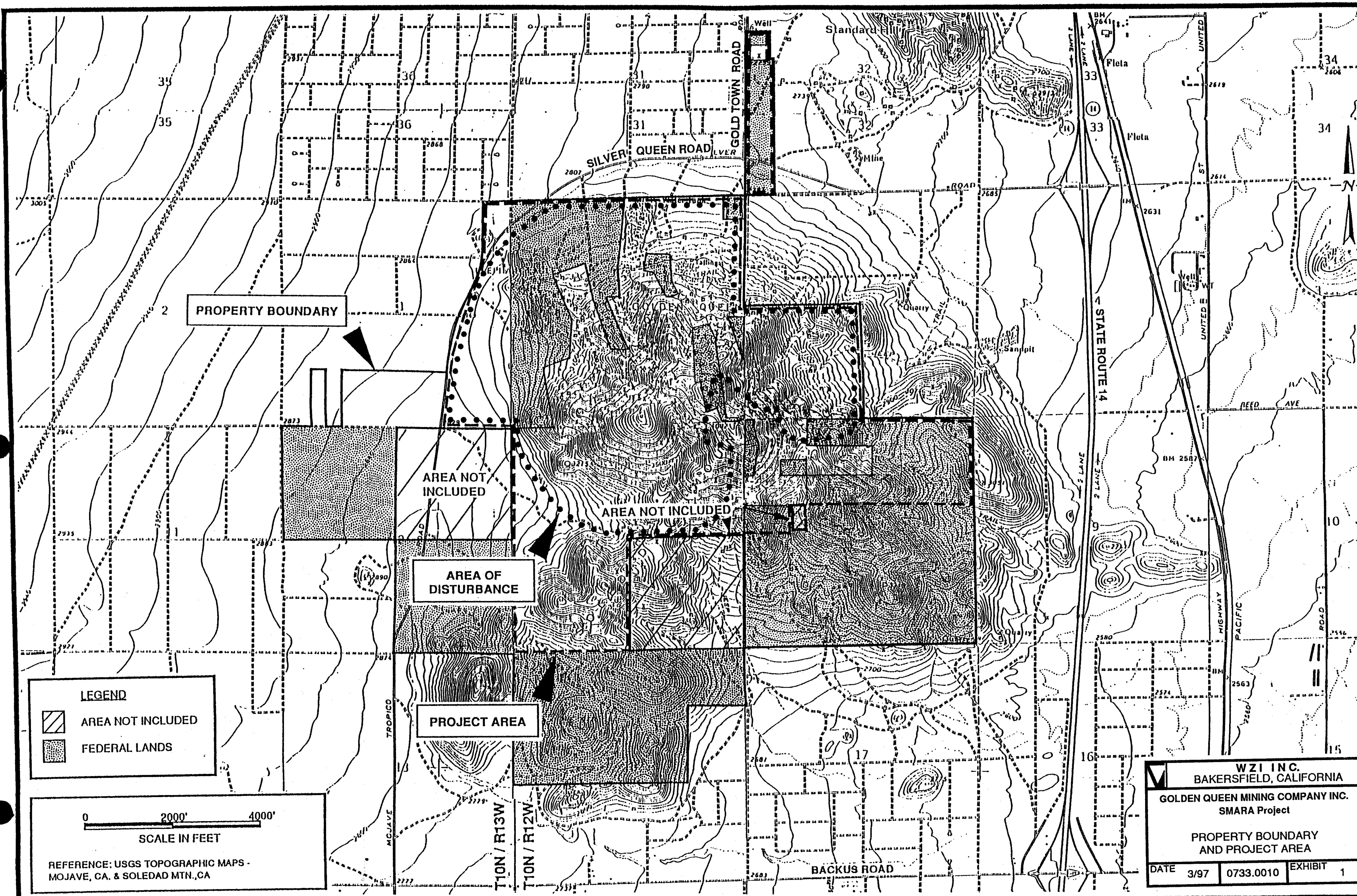
The existing Gold Fields Mill and other miscellaneous structures in the number 1 heap leach pad area will be demolished and all debris will be disposed from the site in accordance with applicable local, state and federal laws and regulations.

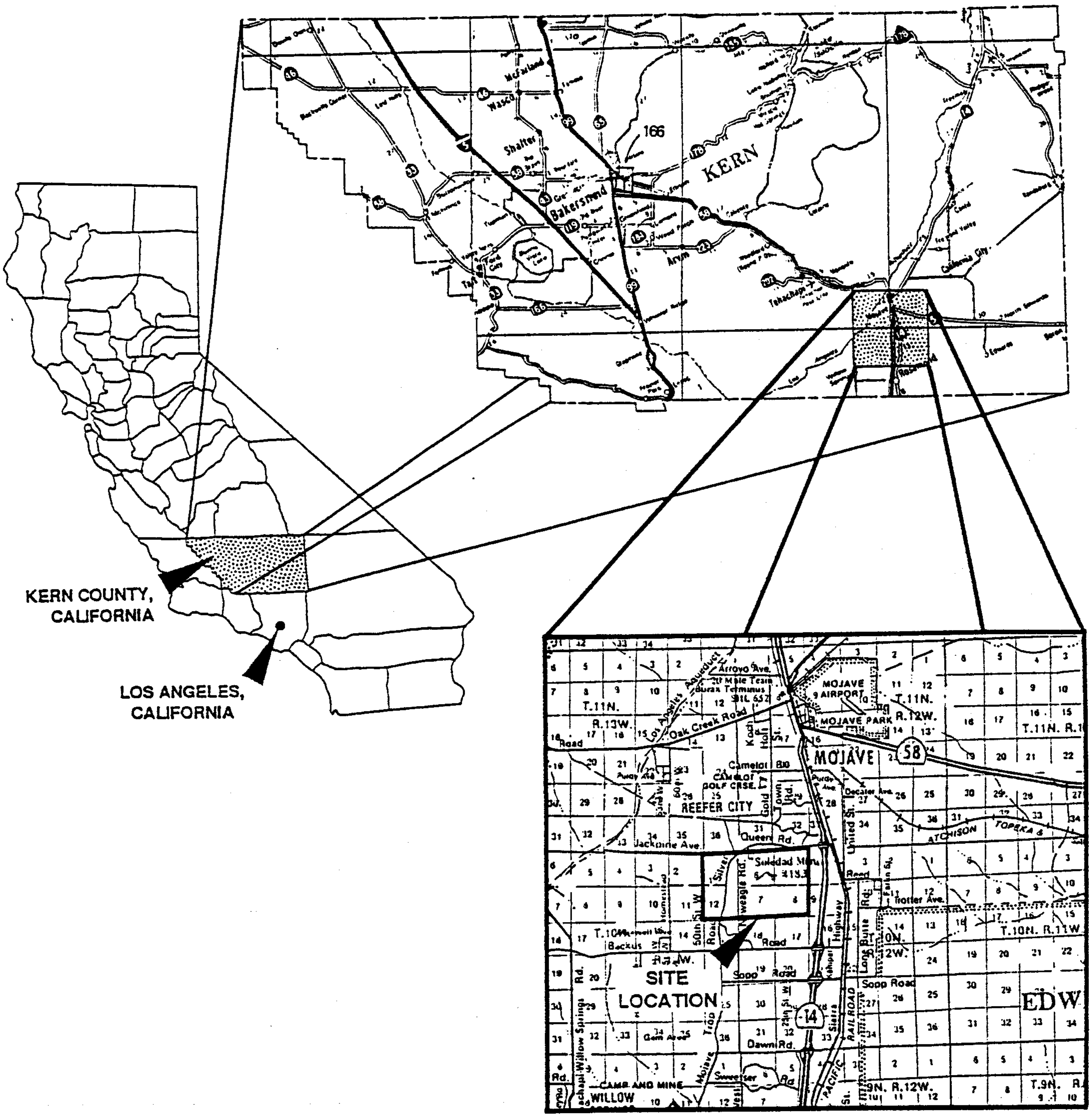
Non-mining waste, such as office and lunchroom waste, will be removed from the site by a contract hauler for disposal in an approved landfill. The quantity of this waste is expected to be 10 to 12 cubic yards per week (six to eight tons per month).

Regulated wastes, such as used oil, spent solvents and laboratory wastes, will be manifested and transported from the site by authorized haulers. All wastes will either be recycled or disposed of in accordance with applicable local, state and federal laws and regulations.

The project requires the use of materials which are classified as hazardous. A Hazardous Material Business Plan will be prepared and filed with the Kern County Environmental Health Department. The Hazardous Material Business Plan will contain an inventory of all hazardous materials that exceed the threshold limits of 500 pounds of a solid, 55 gallons of a liquid or 200 cubic feet of a compressed gas. The Hazardous Materials Business Plan will also list the quantity and storage location of the hazardous materials. All materials will be handled, stored and used in conformance with local, state and federal regulations and company safety policy.

Exhibits


PROPERTY BOUNDARY
AREA NOT INCLUDED
AREA NOT INCLUDED
AREA OF DISTURBANCE
PROJECT AREA
SILVER QUEEN ROAD
GOLD TOWN ROAD
STATE ROUTE 14
BACKUS ROAD
REED AVE
Standard Hill
Fleta
Quarry
Sandpit
Mine
T10N / R13W
T10N / R12W
TROPICO
MOJAVE
LEGEND
AREA NOT INCLUDED
FEDERAL LANDS
0
2000'
4000'
SCALE IN FEET
REFERENCE: USGS TOPOGRAPHIC MAPS - MOJAVE, CA. & SOLEDAD MTN.,CA
WZI INC.
BAKERSFIELD, CALIFORNIA
GOLDEN QUEEN MINING COMPANY INC.
SMARA Project
PROPERTY BOUNDARY
AND PROJECT AREA
DATE
3/97
0733.0010
EXHIBIT
1



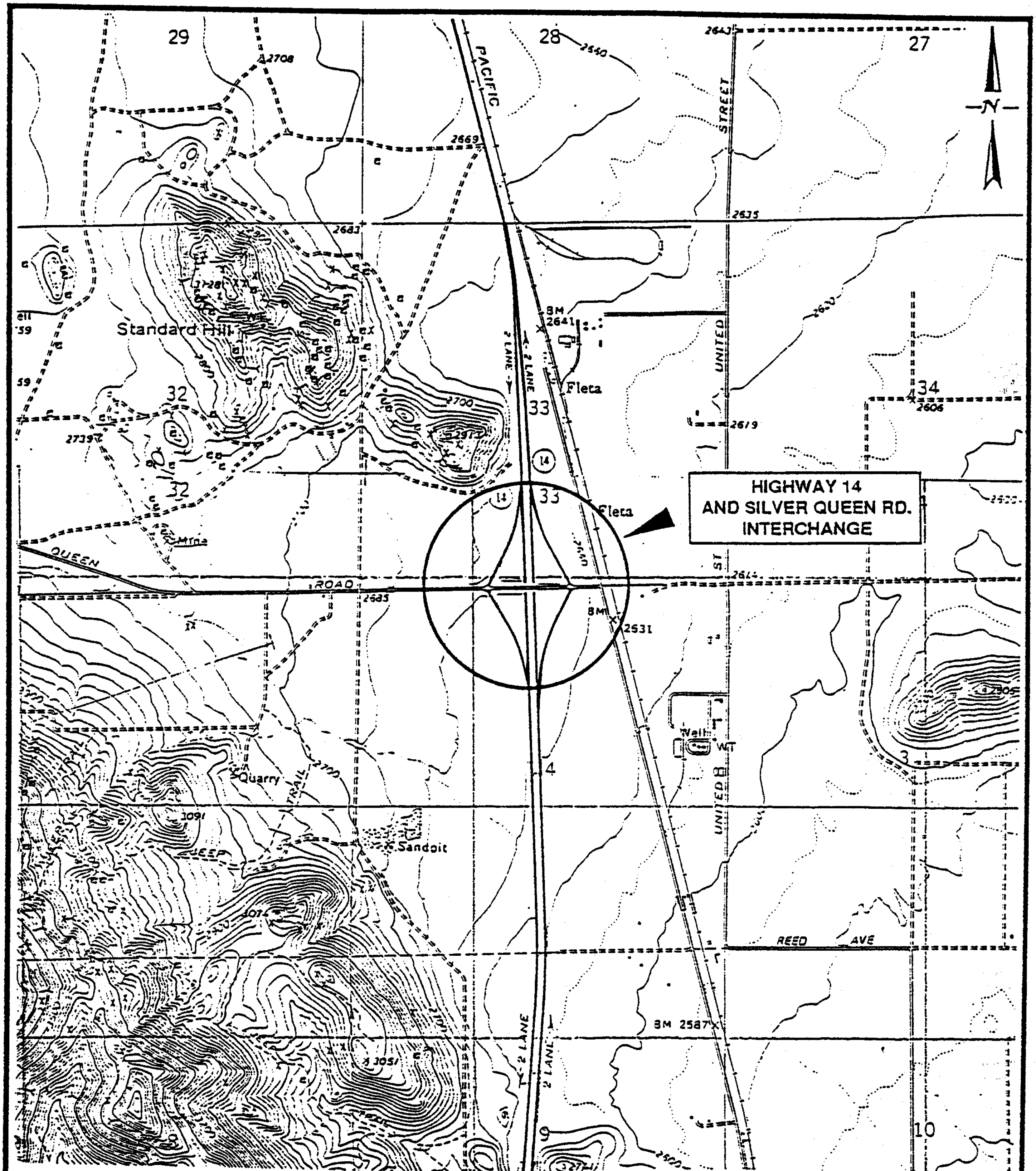
WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY INC.
SMARA Project

REGIONAL LOCATION MAP

DATE		EXHIBIT
11/96	0733.0010	2

N



0 2000' 4000'

SCALE IN FEET

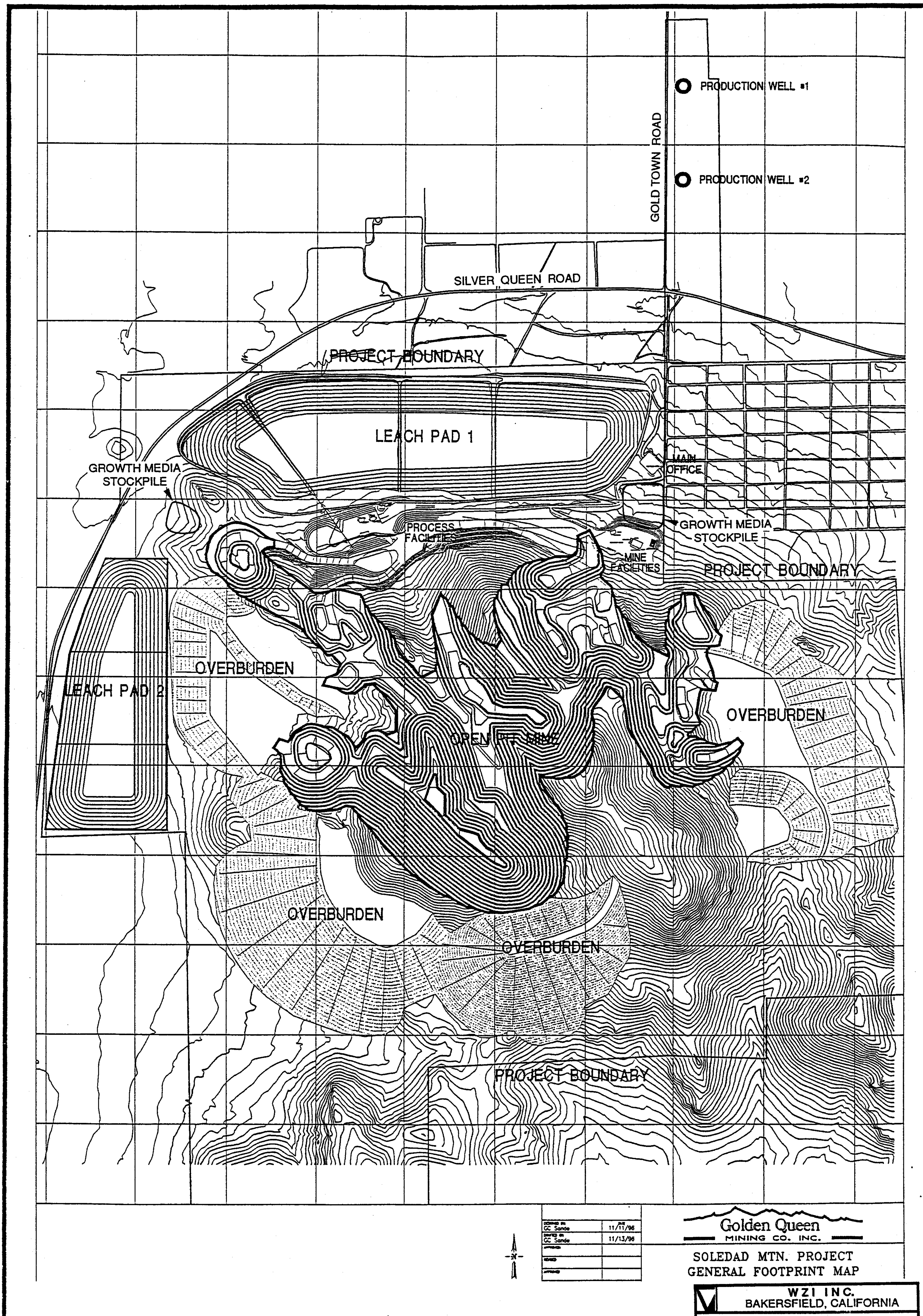
REF: SOLEDAD & MOJAVE U.S.G.S
TOPOGRAPHIC QUADRANGLES

WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY INC.
SMARA Project

INTERCHANGE LOCATION MAP

DATE			EXHIBIT
	11/96	0733.0010	3

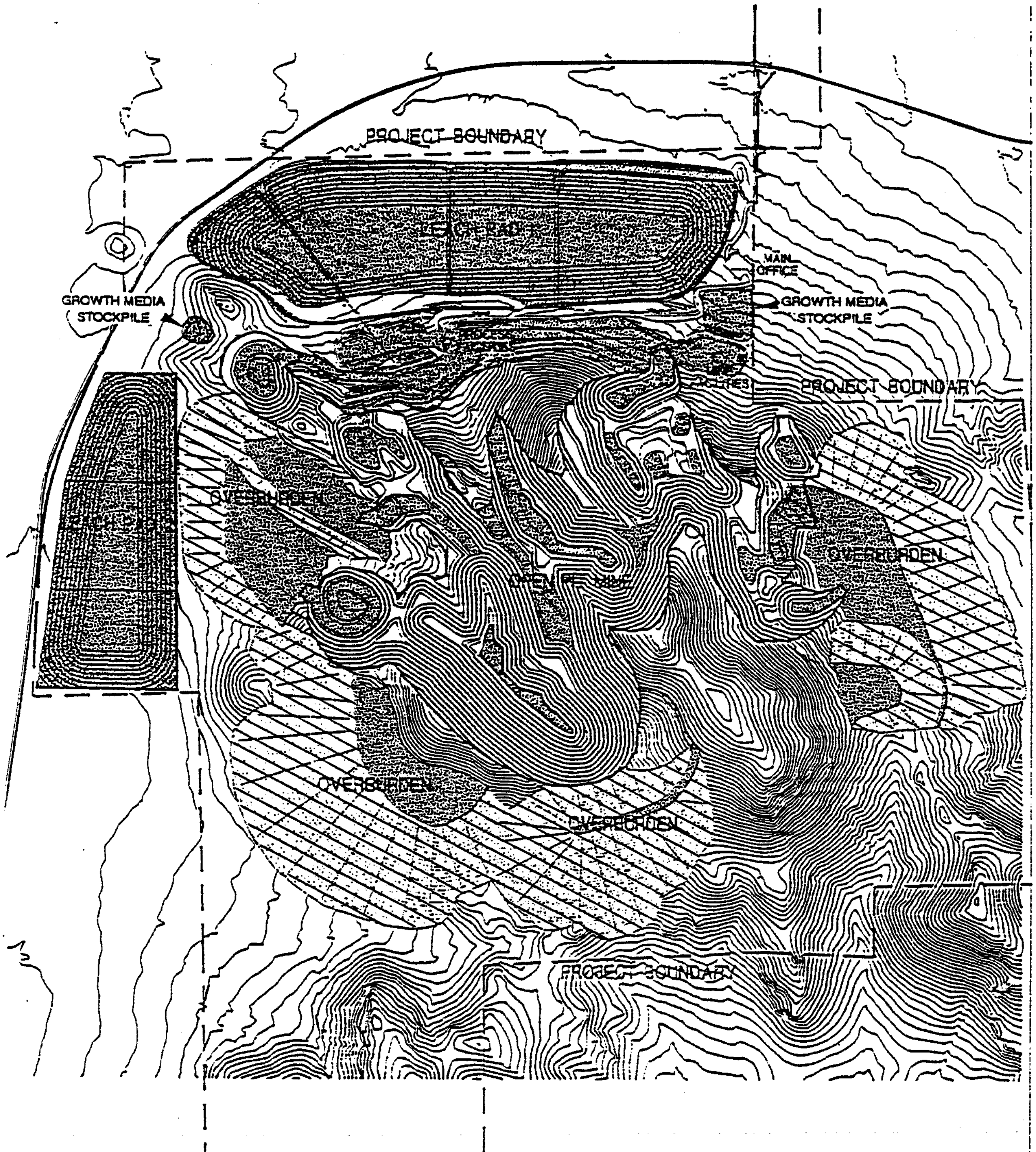


WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY INC.
SMARA Project

CONCEPTUAL PLOT PLAN

DATE 3/97	0733.0010	EXHIBIT 4



0 1500' 3000'

APPROXIMATE SCALE IN FEET

SCALE: 1" = 1200'

Golden Queen Mining Co. Inc.

SOLEDAD MTN. PROJECT
GENERAL FOOTPRINT MAP

WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY INC.
SMARA Project

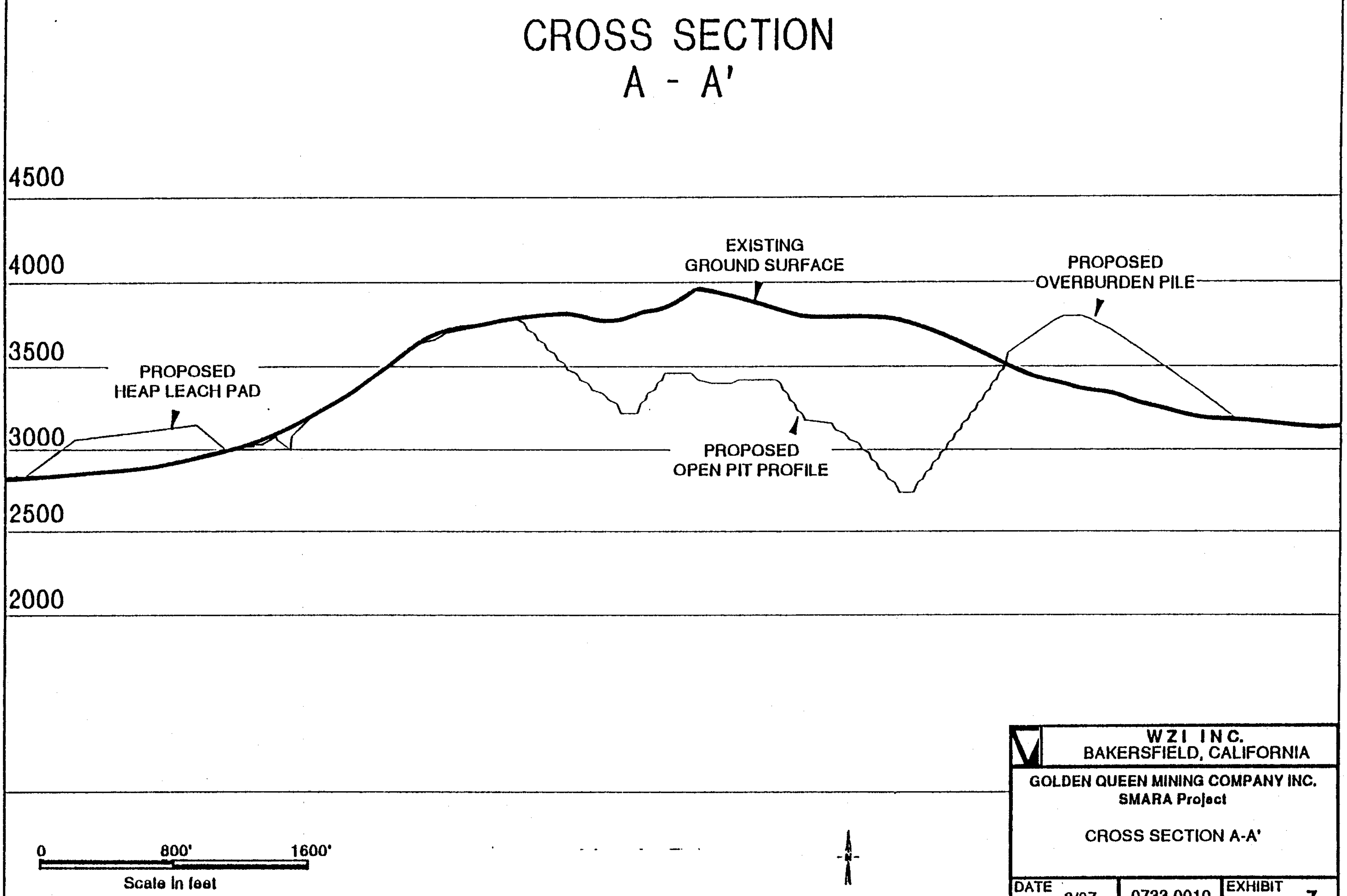
RECLAMATION AREAS

DATE 3/97	0733.0010	EXHIBIT 5

LEGEND

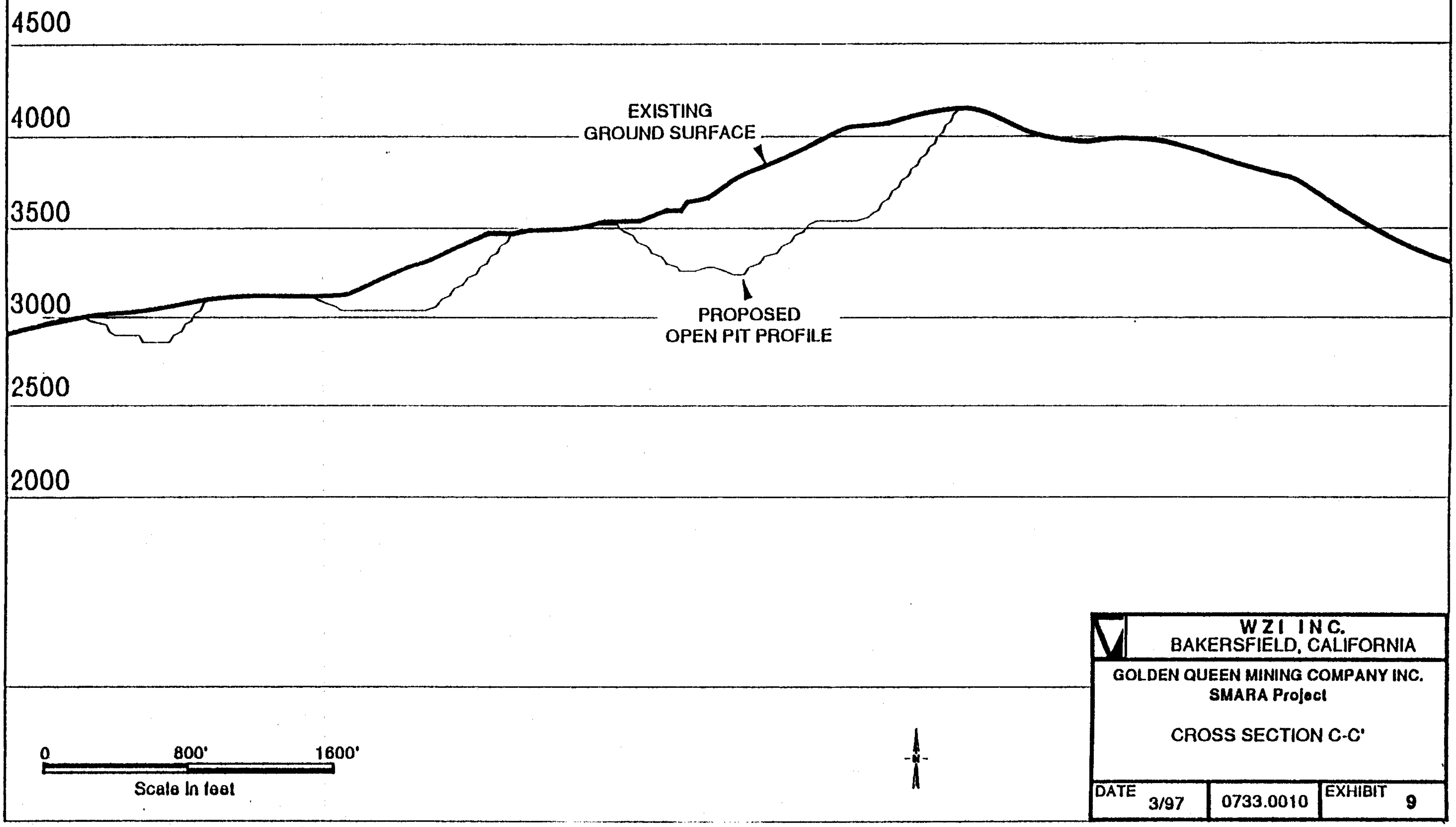
RECLAMATION AREAS SUBJECT TO A REVEGETATION PROGRAM

RECLAMATION AREAS SUBJECT TO GRADING AND NATURAL REVEGETATION



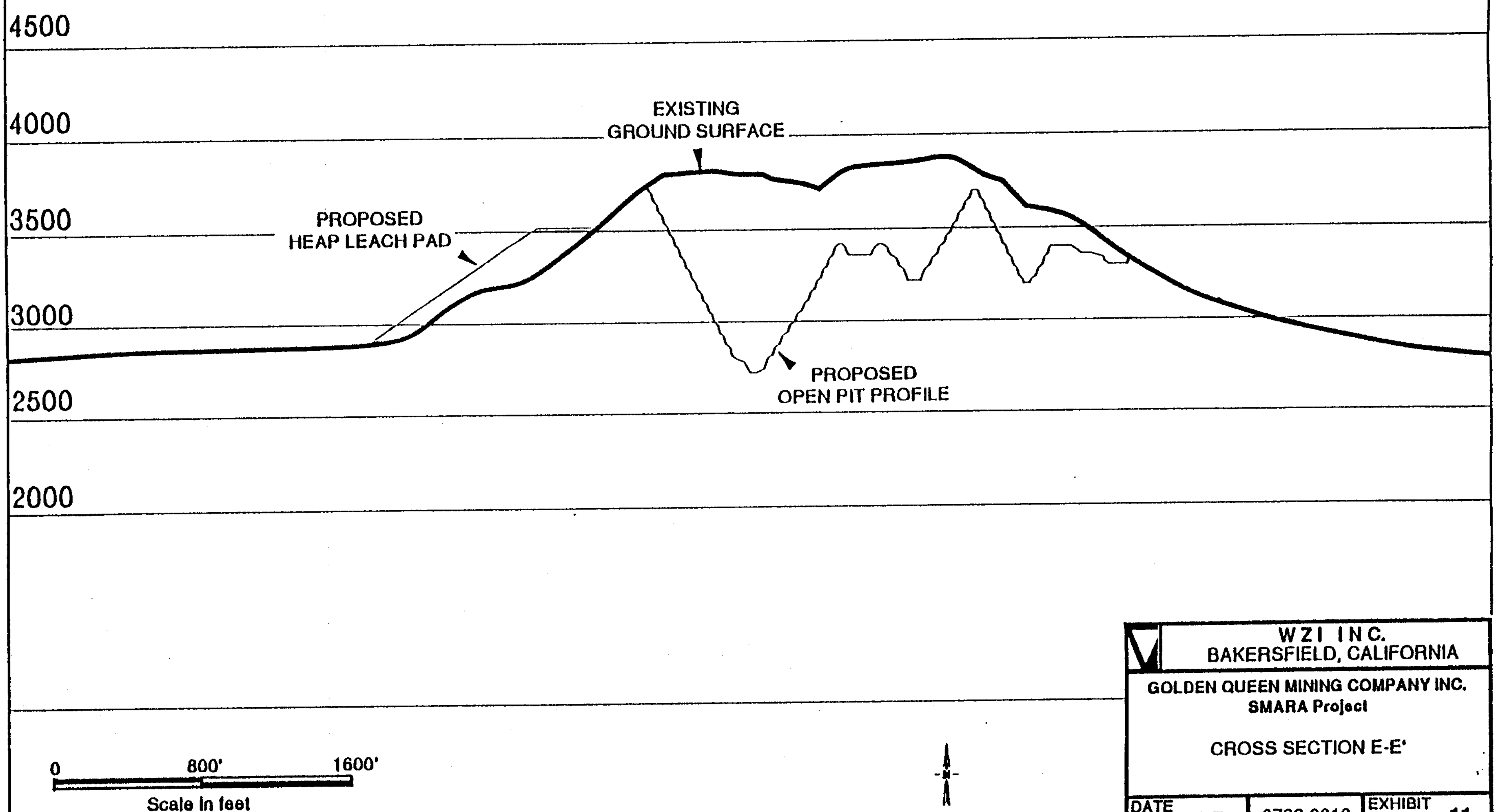
WZI INC. BAKERSFIELD, CALIFORNIA		
GOLDEN QUEEN MINING COMPANY INC. SMARA Project CROSS SECTION A-A'		
DATE 3/97	0733.0010	EXHIBIT 7

CROSS SECTION C - C'



W Z I INC. BAKERSFIELD, CALIFORNIA		
GOLDEN QUEEN MINING COMPANY INC. SMARA Project		
CROSS SECTION C-C'		
DATE 3/97	0733.0010	EXHIBIT 9

CROSS SECTION
E - E'



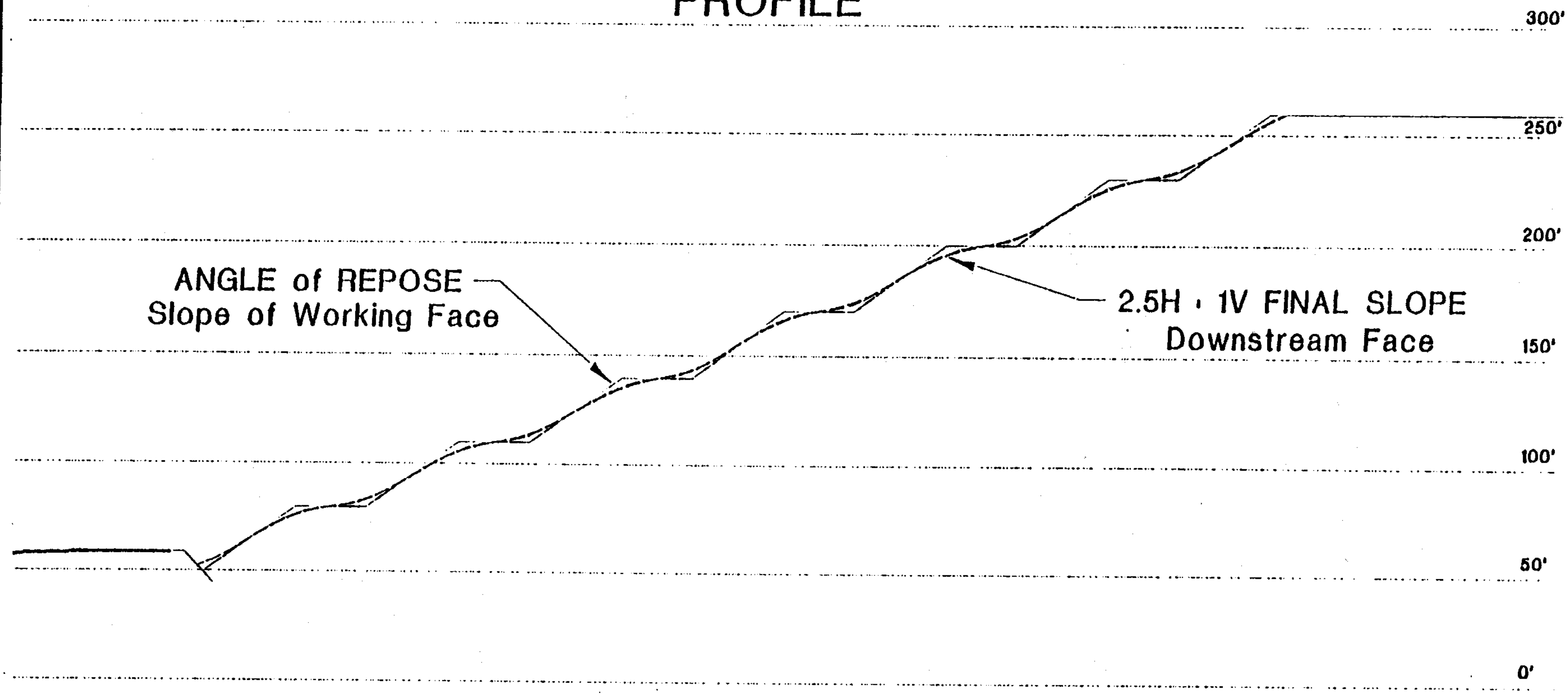
WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY INC.
SMARA Project

CROSS SECTION E-E'

DATE	0733.0010	EXHIBIT
3/97		11

TYPICAL HEAP LEACH PROFILE



SCALE: NONE

Golden Queen Mining Co. Inc.

TYPICAL HEAP LEACH PROFILE

WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY INC.
SMARA PROJECT

TYPICAL HEAP LEACH PROFILE

DATE			
DATE 3/97	0733.0010	EXHIBIT	13

Tables

TABLE 1
Preliminary Mining Equipment List

Item	Quantity
Exploration drills (contracted/seasonal)	2
Blast hole drills	3
ANFO truck	1
Wheel loaders	5
Off-road haul trucks	9
Track dozers	4
Water trucks	2
Motor grader	2
Fuel trucks	1
Maintenance/lubrication trucks	3
Passenger van	1
Portable lights	8
Crane	1

TABLE 2 Available Weather Data

Period	Average Temperature (°F)(1)			Rain (inches)	
	Minimum	Mean	Maximum	Mojave	Palmdale
January	30.6	43.6	57.1	1.10	1.23
February	34.4	47.8	61.2	1.11	1.29
March	39.0	51.9	64.7	0.91	1.13
April	44.0	57.9	71.7	0.32	0.41
May	52.1	65.9	79.7	0.11	0.13
June	59.9	74.6	89.2	0.05	0.06
July	65.7	80.8	95.7	0.16	0.05
August	63.7	79.3	94.8	0.20	0.18
September	56.7	82.7	88.7	0.30	0.25
October	46.1	62.1	78.0	0.25	0.23
November	35.2	50.4	65.6	0.83	0.95
December	28.7	42.9	57.0	0.80	1.01 0.60
Mean Annual	46.3	60.8	75.3	6.14	6.95

(1) From Lancaster for the period January 1969 to December 1993.

TABLE 3
Preliminary Plant Seed Mixture for Revegetation

Shrubs		Rate of Application* Slopes	Flats
Acamptopappus sphaerocephalus	goldenhead	5	5
Ambrosia dumosa	burrowbush	5	20
Atriplex confertifolia	shad scale	1	5
Atriplex polycarpa	cattle spinach	3	3
Chrysothamnus nauseous	rubber rabbitbrush	10	5
Encelia virginensis	acton encelia	5	10
Ericameria cooperi	goldenbush	1	2
Eriogonum fasciculatum	California buckwheat	5	5
Eriogonum plumatella	flat-top buckwheat	2	2
Grayia spinosa	spiny hop-sage	10	1
Hymenoclea salsola	cheesebush	2	1
Krascheninnikovia lanata	winter fat	10	1
Larrea tridentata	creosote bush	20	25
Xylorhiza tortifolia	mojave-aster	5	5
Grasses			
Poa secunda	bluegrass	5	1
Pleuraphis rigida	big galleta grass	1	2
Trisetum canescens	trisetum	2	1
Herbaceous Perennials and Annuals		7	4
Camissonia brevipes	evening primrose	+	+
Chaenactis fremontii	Fremont's pincushion	+	+
Dalea mollis	soft indigo	+	+
Eriogonum trichopes	little trumpet	+	+
Lupinus brevicaulis	sand lupine	+	+
Malacothrix californica	desert dandelion	+	+
Phacelia glandulifera	tackstem phacelia	+	+
Platystemon californicus	cream cups	+	+
Salvia carduacea	thistle sage	+	+

* Rate is an estimated percentage of total seed by volume and reflects relative abundance of plant species.

\+ Rate for herbaceous species is variable depending on seed availability.

Table 4
Reclamation Cost Estimate Basis
At End of Two Years

Costs of Backfilling, Regrading, Slope Stabilization, and Recontouring								
Backfilling	None Required							
Regrading								
				D-10 Dozer		Operator	Total	
	Linear Ft	CY	CY/Hr	Hours	$/Hr*	$/Hr**	Cost	
Pit berms	22,600	20,089	1,680	12	$ 135.00	$ 25.15	$ 1,938	$ 1,938
Slope Stabilization								
				D-10 Dozer		Operator	Total	
		CY	CY/Hr	Hours	$/Hr	$/Hr	Cost	
Northwest overburden pile		132,194	2,490	53	$ 135.00	$ 25.15	$ 8,502	
Southwest overburden pile		836,974	1,892	442	$ 135.00	$ 25.15	$ 70,831	
South overburden pile								
East overburden pile		2,217,600	2,390	928	$ 135.00	$ 25.15	$ 148,573	
SUBTOTAL		3,186,768		1,423			$ 227,907	$ 227,907
Recontouring								
North heap leach pile		343,500	2490	138	$ 135.00	$ 25.15	$ 22,093	
West heap leach pile								
SUBTOTAL		343,500		138			$ 22,093	$ 22,093
Costs of Revegetation and Wildlife Habitat Replacement, including any Monitoring								
				D-10 Dozer		Operator	Total	
Revegetation	Acres	CY	Acre/Hr	Hours	$/Hr	$/Hr	Cost	
Rip and Prepare Compacted Surfaces								
Pit bottom	44		1.10	40	$ 135.00	$ 25.15	$ 6,408	
Northwest overburden pile	37		1.10	33	$ 135.00	$ 25.15	$ 5,314	
Southwest overburden pile	15		1.10	14	$ 135.00	$ 25.15	$ 2,184	
South overburden pile	-							
East overburden pile	16		1.10	14	$ 135.00	$ 25.15	$ 2,300	
Process plant and facilities (35) and roads (11)	46		1.10	42	$ 135.00	$ 25.15	$ 6,755	
SUBTOTAL	$ 158			$ 143			$ 22,960	$ 22,960
Prepare Loose Surfaces								
Pit Bottom	44		7.15	6	$ 135.00	$ 25.15	$ 986	
North heap leach pile	111		7.15	16	$ 135.00	$ 25.15	$ 2,493	
West heap leach pile	-		7.15	-	$ 135.00	$ 25.15	$ -	
East growth media stockpile	6		7.15	1	$ 135.00	$ 25.15	$ 134	
West growth media stockpile	-		7.15	-	$ 135.00	$ 25.15	$ -	
SUBTOTAL	$ 161			$ 23			$ 3,613	$ 3,613
			992 FEL, 777 Truck, 966 FEL***			Operator	Total	
Growth Media Application	Acres	CY	Equip Hrs/Acre	Hours	$/Hr	$/Hr	Cost	
Pit Bottom	44	17,747	4.0	175	$ 149.25	$ 25.15	$ 30,456	
Northwest overburden pile	37	14,722	4.0	145	$ 149.25	$ 25.15	$ 25,264	
Southwest overburden pile	15	6,050	4.0	60	$ 149.25	$ 25.15	$ 10,383	
South overburden pile	-	-	4.0	-	$ 149.25	$ 25.15		
East overburden pile	16	6,373	4.0	63	$ 149.25	$ 25.15	$ 10,936	
Process plant and facilities (35) and roads (11)	46	18,715	4.0	184	$ 149.25	$ 25.15	$ 32,117	
North heap leach pile	111	44,891	4.0	442	$ 149.25	$ 25.15	$ 77,039	
West heap leach pile	-	-	4.0	-	$ 149.25	$ 25.15	$ -	
East growth media stockpile	6	2,420	4.0	24	$ 149.25	$ 25.15	$ 4,153	
West growth media stockpile	-	-	4.0	-	$ 149.25	$ 25.15	$ -	
SUBTOTAL	275	110,917		1,091			$ 190,349	$ 190,349
						Operator	Total	
Accumulate Seeds	Acres	Qts/Acre	Hr/Qt	Hours		$/Hr	Cost	
	275	2.25	0.633	392		$ 15.00	$ 5,878	$ 5,878
						Operator	Total	
Broadcast Seed	Acres	Acres/Hr		Hours		$/Hr	Cost	
Pit Bottom	44	1		44		$ 15.00	$ 660	
Northwest overburden pile	37	1		37		$ 15.00	$ 548	
Southwest overburden pile	15	1		15		$ 15.00	$ 225	
South overburden pile	-							
East overburden pile	16	1		16		$ 15.00	$ 237	
Process plant and facilities (35) and roads (11)	46	1		46		$ 15.00	$ 696	
North heap leach pile	111	1		111		$ 15.00	$ 1,670	
West heap leach pile	-	1		-		$ 15.00	$ -	
East growth media stockpile	6	1		6		$ 15.00	$ 90	
West growth media stockpile	-	1		-		$ 15.00	$ -	
SUBTOTAL	275			275			$ 4,125	$ 4,125
Wildlife Habitat Replacement	None Required							

* Cost Reference Guide for Construction Equipment, 1996, Dataquest

** Means Site Work and Landscape Cost Data, 1995, 14th Edition

*** See Table 4C

Table 4
Reclamation Cost Estimate Basis
At End of Two Years

Monitoring	Years	Times/Yr	Hrs/Time			Cost/Hr	Cost	
Biologic Monitor	5.00	4	40			$ 60.00	$ 48,000	
Reclamation Monitor	1.25	4	48			$ 60.00	$ 14,400	
SUBTOTAL							$ 62,400	$ 62,400
Cost of Final Engineering Design								
Reclamation Consultant	80	$ 90				$ 7,200	$ 7,200	
	Hrs	$/Hr						
Costs of Mobilization	Percentage included in Summary Costs							
Costs of Removal of Buildings, Structures, and Equipment	See Table 4A for breakdown							
Remove Equipment							$ 420,413	$ 420,413
Dismantle Structures							$ 229,917	$ 229,917
Demolish Concrete							$ 48,816	$ 48,816
Bury Concrete							$ 5,422	$ 5,422
Costs Associated with Reduction of Specific Hazards								
Heap Leaching Facilities	See Table 4B for breakdown							
North heap leach pile							$ 475,567	$ 475,567
West heap leach pile							$ -	$ -
Chemical Processing Ponds	None Required						$ -	$ -
Soils Decontamination	Allowance						$ 25,000	$ 25,000
Hazardous Waste Removal	Allowance						$ 25,000	$ 25,000
In-Water Slopes	None Required						$ -	$ -
Highwalls	None Required						$ -	$ -
Landslides	None Required						$ -	$ -
Subsidence or Other Mass Ground Failure	None Required						$ -	$ -
Costs of Drainage and Erosion Control Measures	Included in regrading, slope stabilization, recontouring, and revegetation surface preparation						$ -	$ -
Costs of Soil Tests	Included in soils decontamination						$ -	$ -
Costs of Haul Road Ripping and Reseeding	Included in itemized costing above						$ -	$ -
				Max		Operator	Total	
Costs of Fencing	Linear Ft	Cost/Ft	Ft/Hr	Hours		$/Hr	Cost	
Maintenance of project fencing	52,800	$ 0.379	40	1,333		$ 15.00	$ 20,000	$ 20,000
Remove fencing	52,800	$ 0.189	79	667		$ 15.00	$ 10,000	$ 10,000
Costs of Liability Insurance	Included in contractor's overhead allowance							
								$ -
Costs of Long Term Stabilization, Control, Containment of Waste Solids and Liquids.								
Long Term Stabilization	Incl in regrading, slope stabilization, recontouring, revegetation, and monitoring							$ -
Control			Included in monitoring					$ -
Containment of Waste Solids and Liquids			None Required					$ -
Total Direct Reclamation Cost								$ 1,801,397
Less heap leach neutralization (Part of RWQCB bonding)								$ 475,567
Direct Cost for First Sequential Bonding Requirement								$ 1,325,830
Indirect Costs								
Supervison							4.2%	$ 55,685
Profit/Overhead							8.3%	$ 110,044
Contingencies							7.0%	$ 92,808
Mobilization/Demobilization (not including Heap Neutralization)							1.0%	$ 13,258
Total Reclamation Cost for First Sequential Bonding								$ 1,597,625

Table 4A
Removal of Buildings, Structures, and Equipment

Summary of Costs	
Dismantle buildings	$ 229,917
Remove equipment	$ 420,413
Concrete Demolition	$ 48,816
Bury concrete	$ 5,422
Total	$ 704,567

Dismantle buildings

	Volume		Labor	Equipment	Costs		
	YD3	FT3	$/FT3	$/FT3	Labor	Equipment	Total
Primary Crusher	2,083	56,241	$ 0.072	$ 0.113	$ 4,055	$ 6,372	$ 10,427
Fine Crushing Plant	10,825	292,275	$ 0.072	$ 0.113	$ 21,073	$ 33,115	$ 54,188
Screening Plant	13,770	371,790	$ 0.072	$ 0.113	$ 26,806	$ 42,124	$ 68,930
MCC Bldg, Crusher Area	37	1,000	$ 0.072	$ 0.113	$ 72	$ 113	$ 185
Process Shop	1,473	39,771	$ 0.072	$ 0.113	$ 2,867	$ 4,506	$ 7,374
Process Plant	2,377	64,179	$ 0.072	$ 0.113	$ 4,627	$ 7,271	$ 11,899
Assay Lab	1,622	43,794	$ 0.072	$ 0.113	$ 3,158	$ 4,962	$ 8,119
Mine Shop	11,201	302,427	$ 0.072	$ 0.113	$ 21,805	$ 34,265	$ 56,070
Main Office	2,542	68,634	$ 0.072	$ 0.113	$ 4,949	$ 7,776	$ 12,725
Total					$ 89,412	$ 140,505	$ 229,917
	Estimated labor hours @ $20.00/hr			4,471			

Cost references from Means Site Work and Landscape Cost Data 1995 updated by 3.0% (per CR Briggs)

Table 4A
Removal of Buildings, Structures, and Equipment

Equipment Removal			21.0%	8.8%		25%		
	Cost of Equipment	Cost of Contract	Equipment Installation	Contract Installation	Total Installation	Total Removal		
General Site								
Signs	$ 5,000		$ 1,050	$ -	$ 1,050	$ 263		
Fire Hydrants		$ 4,000	$ -	$ 352	$ 352	$ 88		
Main Substation		$ 429,000	$ -	$ 37,752	$ 37,752	$ 9,438		
						$ 9,789	$ 9,789	
Primary Crusher								
Control Cab		$ 15,000	$ -	$ 1,320	$ 1,320	$ 330		
CV07	$ 93,750		$ 19,688	$ -	$ 19,688	$ 4,922		
CV01	$ 172,500		$ 36,225	$ -	$ 36,225	$ 9,056		
Jaw Crusher	$ 470,000		$ 98,700	$ -	$ 98,700	$ 24,675		
Dust Coleictor	$ 50,000		$ 10,500	$ -	$ 10,500	$ 2,625		
FE17	$ 24,500		$ 5,145	$ -	$ 5,145	$ 1,286		
FE01	$ 71,700		$ 15,057	$ -	$ 15,057	$ 3,764		
						$ 46,659	$ 46,659	
Fine Crushing								
MCC - MC07		$ 99,000	$ -	$ 8,712	$ 8,712	$ 2,178		
MCC - MC08		$ 20,000	$ -	$ 1,760	$ 1,760	$ 440		
CV02		$ 325,000	$ -	$ 28,600	$ 28,600	$ 7,150		
FE02-04	$ 22,800		$ 4,788	$ -	$ 4,788	$ 1,197		
FE05-08	$ 30,400		$ 6,384	$ -	$ 6,384	$ 1,596		
Std Cones	$ 850,000		$ 178,500	$ -	$ 178,500	$ 44,625		
Shd Cones	$ 818,000		$ 171,780	$ -	$ 171,780	$ 42,945		
VSI's	$ 1,054,800		$ 221,508	$ -	$ 221,508	$ 55,377		
Dust Collector	$ 290,000		$ 60,900	$ -	$ 60,900	$ 15,225		
						$ 170,733	$ 170,733	
Screening/Agglomeration								
CV03		$ 240,000	$ -	$ 21,120	$ 21,120	$ 5,280		
CV04		$ 280,000	$ -	$ 24,640	$ 24,640	$ 6,160		
CV05		$ 146,000	$ -	$ 12,848	$ 12,848	$ 3,212		
Belt Tripper	$ 15,000		$ 3,150	$ -	$ 3,150	$ 788		
Agglomeration Drum	$ 95,000		$ 19,950	$ -	$ 19,950	$ 4,988		
Dust Collector	$ 150,000		$ 31,500	$ -	$ 31,500	$ 7,875		
Cement Feeder	$ 8,000		$ 1,680	$ -	$ 1,680	$ 420		
Sampler	$ 18,000		$ 3,780	$ -	$ 3,780	$ 945		
Banana Screens	$ 1,068,000		$ 224,280	$ -	$ 224,280	$ 56,070		
						$ 85,737	$ 85,737	

Table 4A
Removal of Buildings, Structures, and Equipment

Merriill Crowe Plant								
MCC - MC05		$ 71,000	$ -	$ 6,248	$ 6,248	$ 1,562		
Clarifiers	$ 160,000		$ 33,600	$ -	$ 33,600	$ 8,400		
AC02	$ 30,000		$ 6,300	$ -	$ 6,300	$ 1,575		
Filter Presses	$ 140,000		$ 29,400	$ -	$ 29,400	$ 7,350		
Bullion Furnace	$ 17,500		$ 3,675	$ -	$ 3,675	$ 919		
Mercury Retort	$ 75,000		$ 15,750	$ -	$ 15,750	$ 3,938		
Preg Soln Pump	$ 9,300		$ 1,953	$ -	$ 1,953	$ 488		
Barren Soln Pump	$ 10,000		$ 2,100	$ -	$ 2,100	$ 525		
Vacuum Pumps	$ 50,000		$ 10,500	$ -	$ 10,500	$ 2,625		
Filter Press Fd Pumnp	$ 12,500		$ 2,625	$ -	$ 2,625	$ 656		
Precoat Clarifier Pump	$ 6,500		$ 1,365	$ -	$ 1,365	$ 341		
Precoat Filter Press Pump	$ 6,500		$ 1,365	$ -	$ 1,365	$ 341		
Furnace Scrubber	$ 14,000		$ 2,940	$ -	$ 2,940	$ 735		
Preg Soln Tank		$ 60,000	$ -	$ 5,280	$ 5,280	$ 1,320		
Bar Soln Tank		$ 215,000	$ -	$ 18,920	$ 18,920	$ 4,730		
DE Tank	$ 37,500		$ 7,875	$ -	$ 7,875	$ 1,969		
Deareation Tower	$ 20,000		$ 4,200	$ -	$ 4,200	$ 1,050		
Cyanide Tank	$ 20,000		$ 4,200	$ -	$ 4,200	$ 1,050		
Caustic Tank	$ 20,000		$ 4,200	$ -	$ 4,200	$ 1,050		
Anti-scalant Tank	$ 20,000		$ 4,200	$ -	$ 4,200	$ 1,050		
Transfer Pumps	$ 12,000		$ 2,520	$ -	$ 2,520	$ 630		
						$ 42,304	$ 42,304	
Stacking and Conveying								
Conveyor Installation Labor								
Total labor hours								
3,200					$ 72,000	$ 18,000		
Conveyor Electrical		$ 483,000	$ -	$ 42,504	$ 42,504	$ 10,626		
						$ 28,626	$ 28,626	
Truck Shop								
Wash Equipment	$ 10,000		$ 2,100	$ -	$ 2,100	$ 525		
Oil-Water Separator	$ 8,000		$ 1,680	$ -	$ 1,680	$ 420		
Diesel Fuel Tank		$ 35,000	$ -	$ 3,080	$ 3,080	$ 770		
						$ 1,715	$ 1,715	
Laboratory								
Transfromer & MCC		$ 41,450	$ -	$ 3,648	$ 3,648	$ 912	$ 912	
Plant Water System								
Well Pumps	$ 20,120		$ 4,225	$ -	$ 4,225	$ 1,056		
Surge Tank		$ 16,000	$ -	$ 1,408	$ 1,408	$ 352		
Water Tank		$ 160,000	$ -	$ 14,080	$ 14,080	$ 3,520		
Electrical Systems		$ 77,000	$ -	$ 6,776	$ 6,776	$ 1,694		
						$ 6,622	$ 6,622	
Other								
Powder Magazinbes		$ 15,400	$ -	$ 1,355	$ 1,355	$ 339		
Radio Repeater Station		$ 23,975	$ -	$ 2,110	$ 2,110	$ 527		
						$ 866	$ 866	
Pad 3 Sustaining								
Conveyor	$ 460,000		$ 96,600	$ -	$ 96,600	$ 24,150		
Pumps	$ 36,650		$ 7,697	$ -	$ 7,697	$ 1,924		
MCC's		$ 17,100	$ -	$ 1,505	$ 1,505	$ 376		
						$ 26,450	$ 26,450	
Total Equipment Removal							$420,413	

Table 4A
Removal of Buildings, Structures, and Equipment

Concrete	25%	percent of foundations, piers, footings, etc., to be demolished						
				Demolition Cost				
General Site	YD3	Labor/YD3	Equip/YD3	Labor	Equip	Total	Sq Feet	
Propane tank slab	15						100	
Transformer slabs	9						486	
Primary Crusher								
Footings, piers, Etc.	20	$ 92	$ 134	$ 1,840	$ 2,680	$ 4,520	4,611	
Fine Crushing								
Crushing Foundations	56.25	$ 92	$ 134	$ 5,175	$ 7,538	$ 12,713	4,998	
Conveying Foundations	15	$ 92	$ 134	$ 1,380	$ 2,010	$ 3,390	16,609	
Screening/Aggolmeration								
Foundations	64.5	$ 92	$ 134	$ 5,934	$ 8,643	$ 14,577	6,973	
Foundation, Cement Silo	2.5	$ 92	$ 134	$ 230	$ 335	$ 565	incl	
Foundation, Agglom Drum	3.75	$ 92	$ 134	$ 345	$ 503	$ 848	625	
Process Plant								
Foundations	20.5	$ 92	$ 134	$ 1,886	$ 2,747	$ 4,633		
Slabs	107						2,679	
Stacking & Conveying								
Foundations	8.75	$ 92	$ 134	$ 805	$ 1,173	$ 1,978	5,000	Allowance
Buildings & Facilities								
Gas Tank Foundation	2.25	$ 92	$ 134	$ 207	$ 302	$ 509	500	Allowance
Diesel tank foundation	4	$ 92	$ 134	$ 368	$ 536	$ 904	500	Allowance
Wash Slab	37						1,000	
Lube tank slab	33						550	
Truck shop floor slab	315						8,400	
Wash bay floor slab	66						1,800	
Truck shop aprons	91						2,400	
Lab	79						2,400	
Process Shop	102						2,400	
Pumphouse	12						100	
Misc								
Water tank	16	$ 92	$ 134	$ 1,472	$ 2,144	$ 3,616	432	
Cell 3 pump pad	2.5	$ 92	$ 134	$ 230	$ 335	$ 565	135	
Total Concrete	1,082			$ 19,872	$ 28,944	$ 48,816	62,698	
Bury slabs and demolished piers, etc. under 3 feet of overburden								
Cubic yards of overburden required							6,966	
Haul		Avg Rnd Trip	Rnd Trip	Total	Opr	Equip	Total	
Cat 777's	YD3/Truck	Dist, Mi	Time	Time	$/Hr	$/Hr	Cost	
	67	0.76	6.05	12.58	$ 25.15	$ 165	$ 2,393	
Load								
Cat 992	Loader hrs equal truck hours			12.58	$ 25.15	$ 180	$ 2,581	
				Total	Opr	Equip	Total	
Doze	YD3/Hr			Time	$/Hr	$/Hr	Cost	
Cat D-10	2,490			2.80	$ 25.15	$ 135	$ 448	
Total cost for burying concrete							$ 5,422	
						PER YD3	$ 0.78	
Cost references from Means Site Work and Landscape Cost Data 1995 updated by 3.0% (per CR Briggs)								

Table 4B
Heap Leach Neutralization

	1st Rest	1st Rinse	2nd Rest	2nd Rinse	Heap Sampling	Evaporation	Total	
Days	55	55	55	55	15	223	459	
Labor								
Operator		$ 24,191		$ 24,191		$ 40,805	$ 89,187	(10 hrs/day during evap)
Utility		$ 3,240		$ 3,240		$ 13,116	$ 19,596	(5 days/week)
Mechanic		$ 2,430		$ 2,430		$ 9,837	$ 14,697	(5 days/week, 1/2 day)
Lab Tech		$ 864		$ 864	$ 1,644		$ 3,372	(1 day per week)
Subtotal	$ -	$ 30,724	$ -	$ 30,724	$ 1,644	$ 63,758	$126,851	
Power								
Spray		$ 45,358		$ 45,358		$ 76,510	$167,226	
Wells		$ 1,661		$ 1,661			$ 3,322	
Process		$ 2,002		$ 2,002			$ 4,004	
Shop		$ -		$ -			$ -	
Lab		$ 292		$ 292			$ 584	(1 day/per week)
Subtotal	$ -	$ 49,313	$ -	$ 49,313	$ -	$ 76,510	$175,136	
Operating Supplies								
Descalent		$ 4,248		$ 4,248		$ 7,166	$ 15,662	
Calcium Hypochlorite				$ 75,533			$ 75,533	
Sprinklers						$ 3,240	$ 3,240	
Piping						$ 22,500	$ 22,500	
Subtotal	$ -	$ 4,248	$ -	$ 79,782	$ -	$ 32,906	$116,935	
Maintenance Supplies		$ 9,072		$ 9,072		$ 15,302	$ 33,445	
Contract Costs								
Heap drilling					$ 14,400		$ 14,400	
Solution analysis					$ 2,400		$ 2,400	
Solids analysis					$ 6,400		$ 6,400	
Subtotal					$ 23,200		$ 23,200	
TOTAL COSTS	1st Rest	1st Rinse	2nd Rest	2nd Rinse	Heap Sampling	Evaporation	Total	
LABOR	$ -	$ 30,724	$ -	$ 30,724	$ 1,644	$ 63,758	$126,851	
POWER	$ -	$ 49,313	$ -	$ 49,313	$ -	$ 76,510	$175,136	
OPERATING SUPPLY	$ -	$ 4,248	$ -	$ 79,782	$ -	$ 32,906	$116,935	
MAINT SUPPLY	$ -	$ 9,072	$ -	$ 9,072	$ -	$ 15,302	$ 33,445	
CONTRACT	$ -	$ -	$ -	$ -	$ 23,200	$ -	$ 23,200	
TOTAL	$ -	$ 93,357	$ -	$ 168,891	$ 24,844	$ 188,475	$475,567	
COST PER TON ORE NEUTRALIZED							$ 0.040	

Table 4C
Reclamation Cost Estimate Basis

Recontouring								
D-10 Dozer - SU Blade		North	West					
Dozing Distance, Ft		36						
LCY/Hr		2,500	2,500					
Operator	Excellent	1.00	1.00					
Material	Loose	1.20	1.20					
Slot Dozing	No	1.00	1.00					
Side by Side Dozing	No	1.00	1.00					
Visibility	Good	1.00	1.00					
Job Efficiency	50 min/hr	0.83	0.83					
Grade	0	1.00	1.00					
Production Rate	CY/Hr	2,490	2,490					
Rip and Prepare Compacted Surfaces								
	1.10	acres/hr	per Bamberg					
Prepare Loose Surfaces								
	7.15	acres/hr	per Bamberg					
Growth Media Application								
	966 front end loader		0.50	hrs per acre per Bamburg				
	haul truck		232.5	cu yds per hour per based on 3.6 mile haul @ 15 mph				
	992 loader			need same hours as truck hours				
			operator	equip	hrs	equip $	opr $	
		966 loader	$ 25.15	$ 40.00	138	$ 5,500	$ 3,458	$ 8,958
		haul truck	$ 25.15	$ 150.00	477	$ 71,545	$ 11,996	$ 83,541
		992 loader	$ 25.15	$ 180.00	477	$ 85,854	$ 11,996	$ 97,850
			$ 25.15	$ 149.25	1,091	$162,899	$ 27,450	$190,349
					3.97			$ 692.18
					hrs/acre			$/acre
Purchase/Gather Seed								
		0.63	Hours/quart		per Bamberg			
		2.25	qts seed per acre		per Bamberg			
		$ 9.50	per quart to gather		per Bamberg			
		21.375	$/acre					
Broadcast Seed		hours/acre	Labor/hr		per Bamberg			
		1.0	$ 15.00			$ 15.00	per acre	
Fences								
Fence Installation			$ 0.76	per PAH cost estimate				
Fence Maintenance			$ 0.38	50% of installation cost				
Fence removal			$ 0.19	25% of installation cost				

Attachment A

The project area shown in the attached map consists of those portions of Sections 5, 6, 7 and 8, Township 10 North, Range 12 West, SBBM, Section 1, Township 10 North, Range 13 West, SBBM and Section 32, Township 11 North, Range 12 West, SBBM in Kern County, California, described as Parcel 1 and Parcel 2 below:

Parcel 1

Those portions of Sections 5, 6, 7 and 8, Township 10 North, Range 12 West, SBBM and Section 1, Township 10 North, Range 13 West, SBBM in Kern County, California, described as follows:

Beginning at the Northeast corner of Section 6, Township 10 North, Range 12 West, SBBM; thence, South 88° 30' West along the North line of Section 6 and the North line of Section 1, Township 10 North, Range 13 West, a distance of 6,056 feet to a point; thence, South 0° 22' West a distance of 1,462 feet, more or less, to a point on the Southeast boundary of Mojave Tropico/Silver Queen Road; thence, Southwesterly along the Southeast boundary of Mojave Tropico/Silver Queen Road a distance of 4,525 feet, more or less, to a point on the North boundary of Section 12, Township 10 North, Range 13 West; thence, North 87° 37' East along the North boundary of Section 12 a distance of 1,603 feet to the Northeast corner of Section 12; thence, South 1° 49' West along the East boundary of Section 12 a distance of 5,317 feet to the Southeast corner of Section 12; thence, North 87° 29' East along the South boundary of Section 7, Township 10 North, Range 12 West a distance of 2,643 feet to the South one-quarter corner of Section 7; thence, North 2,585 feet to the Northwest corner of the Southeast quarter of Section 7; thence, North 88° 34' East along the North boundary of the Southeast quarter of Section 7 and the North boundary of the Southwest quarter of Section 8, Township 10 North, Range 12 West a distance of 3,762 feet to a point; thence, North 676 feet to a point; thence, North 88° 21' East 4,203 feet to a point on the East boundary of Section 8; thence, North 2° 21' West along the East boundary of Section 8 a distance of 2,006 feet to the

Northeast corner of Section 8; thence, South 89° 26' West 2,549 feet along the North boundary of Section 8 to the North one-quarter corner of Section 8; thence, North 4° 17' West 2,612 feet to the Northeast corner of the Southwest quarter of Section 5, Township 10 North, Range 12 West; thence, South 89° West 2,578 feet to the West one-quarter corner of Section 5; thence, North 2,474 feet along the Westerly boundary of Section 5 and the Easterly boundary of Section 6 to the point of beginning.

Parcel 2

That portion of Section 32, Township 11 North, Range 12 West, SBBM in Kern County, California, described as follows:

Beginning at the Southwest corner of said Section 32; thence, North 0° 6' East along the Westerly boundary of Section 32 a distance of 3,856 feet; thence, North 89° 0' East a distance of 460 feet; thence, South 2° 18' East a distance of 669 feet; thence, East a distance of 108 feet; thence, South 1° 21' East a distance of 3,191 feet to a point on the South boundary of Section 32; thence, South 88° 30' West along the South boundary of Section 32 approximately 677 feet to the point of beginning.

MAY 06 1996

Golden Queen
MINING CO. INC.

May 3, 1996

David Weiss
WZI, Inc.
4700 Stockdale Hwy, Ste.120
Bakersfield, CA 93309

Dear Mr. Weiss,

Enclosed is the information sent to all property owners as a requirement of the California Surface Mining and Reclamation Act of 1975. Also enclosed is a copy of the "Owners Mailing List".

If you have any questions please feel free to call me at (805) 256-0120.

Sincerely,

Sue Young
Admin. Asst.

/sy

Enclosures

Golden Queen
MINING CO. INC.

May 1, 1996

Dear Property Owner:

This information is being provided to you as well as all other property owners as a requirement of the California Surface Mining and Reclamation Act of 1975.

Golden Queen Mining Company, Inc. (Golden Queen) has an agreement with you for the use of your property as part of its' Soledad Mountain project. As you are aware, the Soledad Mountain project is a proposed gold mining and processing operation that will use typical open pit mining methods with the ore to be processed using a cyanide -- heap leach recovery technique and final gold recovery by a Merill-Crowe process.

Open pit mining will consist of the drilling and blasting of the non-mineral overburden material as well as the ore. The broken overburden and ore are then loaded into off-road haulage trucks by large front-end loaders. Overburden is to be transported to adjacent areas for final disposal or stockpiled for possible use as a construction material. Ore will be hauled to the crushing facility where it will be broken down to a size of slightly less than one eighth of an inch. Some finer material will be developed as a natural part of this crushing process.

The broken ore will be mixed with predetermined amounts of lime for pH control and cement for the development of desecrate, bonded lumps. This latter process is referred to as agglomeration and is used to insure that the leach solutions and later rinse waters are able to pass completely through the heap as well as make contact with all of the ores in the heap

Conveyors will transport the agglomerated ore to lined leach pads where it is to be stacked to an ultimate height in excess of 160 feet using individual lifts of about 30 feet. After each lift is completed, leach solutions will be applied by drip irrigation systems identical to those often used in agriculture. The leach solutions, a dilute cyanide -- water mixture, pass through the ore, slowly dissolving the gold as well as silver and are collected at the bottom of the ore heap on an impermeable liner where they are allowed to accumulate for pumping to the recovery plant.

Reclamation will be an ongoing part of the operation and will take place as areas are no longer in use. Each of the individual parts of the project will be reclaimed differently The open pits will be left in a stable, safe condition, but will not be back filled. This will allow for future access to the remaining gold bearing material as changing economics and technologies act to make this deposit an important resource once again.

The overburden piles that are not used for construction materials will be left in a stable form with the level surfaces re-vegetated. However, it is expected that a substantial amount of the overburden will be used over an extended period of time as construction materials.

Leach pads will be rinsed to a point where the water from the heap is at an acceptable level for both cyanide and other ions. The heaps will then be graded, surfaced with previously recovered growth media (soil) and re-vegetated

At the completion of the project, the property that Golden Queen has under an agreement from you may contain overburden piles, open pits and/or leach pads. As previously noted, each of these features will be reclaimed in the fashion described with the health and safety of future users very much in mind. Certain financial instruments will be in place before the project starts to cover the cost of reclamation in the unlikely event that Golden Queen is unable to complete the required work.
If you would like additional information, have any questions or concerns regarding the above, please feel free to contact me at the below telephone or address.

Sincerely:

Dick Graeme

Richard W. Graeme, Vice-president

P.O. Box 878, 2997 Desert St., Suite #4, Rosamond, CA 93560-0878
Telephone: (805) 256-0120 • Fax: (805) 256-6526

GOLDEN QUEEN MINING CO., INC.

Owners Mailing List

Akin Jr., Charles Clark
7630 Via Del Reposo
Scottsdale, AZ 85258
(602) 483-3505

Akin-Hatch, DeAnn
61535 So Hwy 97-9 #150
Bend, OR 97702
(503) 593-8882

Allen, Scott Thomas
304 Clover Lane
Fort Collins, CO 80524
9704989471

Allen, Cheryl Catherine
686 1/2 N. Coast Hwy.
Laguna Beach, CA 92651
(714) 497 4933

Allen, Douglas Michael
17497 County Rd. #501
Bayfield, CO 81122
(303) 884-2508

Allen, Mary Ann B.
560 East Villa St. Apt. 1011
Pasadena, CA 91101

Barrow, Thomas & Laura
4605 Post Oak Place, Ste. 207
Houston, TX 770279728
(713) 871-8031

Beck, Charlie
Soledad-Mojave Mining Syndicate
932 Springwood Lane
Encinitas, CA 92024

Benson, Mary M.
1702 Ninth Avenue
Yuma, AZ 85364
(602) 783-6554

Birtle, Mary J.
Southwestern Refining Corp.
5028 Ladera Vista Dr.
Camarillo, CA 93012
(805) 482-3677

Boyle, John T.
1418 Pasqualito Ave.
San Marino, CA 91108
(8l8) 799-3002 (818) 799-7000

Boyle, Barbara
Kingsley Manor
1055 N. Kingsley Dr. #201
Los Angeles, CA 90029
(213) 662-4860

Brodine III, Robert C.
6226 West 10052 N
Highland, UT 84003
(801) 756-5491

Bruce, Howard E.
c/o Nancy Ellen Hassard
12694 Mirado Ave.
Grand Terrace, CA 92324
(714) 825-2009

Burton, Terry
5800 Pioneer Rd. #1
Mojave, Ca 93501
(805) 824-1405

Burton, Cecil
P.O. Box 2
La Grange, CA 95329
(209) 852-2641

Campbell Jr., Louis G.
821 Crater Camp Dr.
Calabasas, CA 91302
(818) 888-8148

Condit, Alice E.
c/o Barbara Condit
402 E. McKinley
Pomona, CA 91767
(909) 621-8111 (909) 622-5332

Cousins, Joyce
18717 Mill Villa Rd. #626
Jamestown, CA 95327
(209) 533-8897

Cruz, Rolando & Delia
8103 Los Ranchos Dr.
Austin, TX 78749
(512) 280-4042

Evans, Nancy
c/o Mary Slaughter
2540 N. Brimhall
Mesa, AZ 85203
(602) 969-9503

Frisbee, Don C.
1500 S.W. First Ave., Ste. 1005
Portland, OR 97201
(503) 238-0101

Frisbee-Fisher, Theodora
Kensington Place
1580 Geary Rd.
Walnut Creek, CA 94596
(510) 256-6436

Frisbee-Hart, Barbara
P.O. Box 600
Winston, OR 97496
(503) 679-6764

Godfrey, Eric W
531 Stephens
Fillmore, CA 93015

Gupta, M.D., Praveen
9435 Venice Blvd.
Culver City, CA 90232

Hamilton, Marie & Stussy
3010 Skywood
Orange, CA 92665
(714) 637-0290

Hanly, Teresa Gail
26382 Mimosa Lane
Mission Viejo, CA 926911924
(714) 454-8674

Henry, Alma A.
Box 1267
Lyman, WY 829371267

Hodges, Ella
24410 Crenshaw Blvd.
Torrance, CA 90505
(310) 784- 0802

Holmes, Michael E.
c/o Mary Slaughter
2540 N. Brimhall
Mesa, AZ 85203
(602) 969-9503

Holmes, Raymond R.
c/o Mary Slaughter
2540 N. Brimhall
Mesa, AZ 85203
(206) 964-8883

Holmes II, George I.
2876 E. Virginia
Apache Junction, AZ 85219
(602) 671-1165

Iten, Janice
1010 Maple Drive
Ukiah, CA 95482
(707) 462-7437

Kenton, Frank
4911 Leeds St.
Simi Valley, CA 93063

Knight, Virginia
540 South Arden Blvd.
Los Angeles, CA 90020
(213) 935-5508

Letteau, Betty B.
9255 Doheny Rd. #3002
Los Angeles, CA 900693248
(213) 274-9042

Letteau, Robert M.
723 No.Roxbury Drive
Beverly Hills, CA 90210
(213) 271-0805

Lynn, William M.
2100 El Molina Ave..
San Marino, CA 91108
(505) 982-0997 (818) 682-1948

McMillen, Emma G.
767 Clara Drive
Palo Alto, CA 94303
(415) 327-3092

McMillen, H. L.
1427 Madera Way
Millbrae, CA 940302826
(415) 697-9120

Meehl, Mary a.k.a. May
3730 Trieste Dr.
Carlsad, CA 92008

Meehl, Grace W
714 Valita St.
Venice, CA 90291

Meehl, John G.
239 Kittery Place
San Ramone, CA 94583

Moore, Gaston & Wilhelmin
6150 West Wagoner Rd.
Glendale, AZ 853081151

Moore, Robert S.
590 Castano Ave.
Pasadena, CA 91107
(818) 449-3891

Moore, Robert L.
3075 San Pasqual
Pasadena, CA 91107
8186833174

Mudd Estate,
J. Arthur Greenfield & Co.
924 Westwood Blvd. Ste. 1000
Los Angeles, CA 90024
(310) 208-2646

Nicodemus, Roger E.
733 Briar Hill Circle
Simi Valley, CA 93065
(818) 901-3627 (805) 527-5397

Norton, Carolyn E.
P.O. Box 1731
St. John, AZ 85436
(602) 337-2778

Orr, Barbara C.
704 E. Lehi Road
Mesa, AZ 85203
(602) 461-1644

Pennington, Marcus A.
8322 Foothill Blvd.
Sunland, CA 91040
(818) 352-4556 (818) 352-6459

Pennington, Marlowe
P.O. Box 4667
Palm Springs, CA 922634667
(619) 323-0224

Sigl, James P
714 Valita St.
Venice, CA 90291

Sigl, Ginny
Karma Wegman Corp.
714 Valita Street
Venice, CA 90291
(310) 396-7231

Slayton, Gean A.
P O Box 1772
St. John's, AZ 85936
(602) 527-1830

Smith, Selma M.
5272 Lindley Ave.
Encino, CA 91316

Starke, George O.
9442 Mast Blvd.
Santee, CA 92071
(619) 435-2421

Starke, Royden W.
2010 Donahue Drive
El Cajon, CA 92019
(619) 442-9058

Stelzner, Thomas L.
534 Selmart Lane
Petaluma, CA 949542500
7077652832

Thagard Jr., George F.
#60 Linda Isle
Newport Beach, CA 92600
(714) 723-5226 (714) 675-6767

Van Pelt, Donald Richard
P.O. Box 4667
Palm Springs, CA 922634667
(619) 323-0224

Walston, Wilbur
8438 Venus Drive
Buena Park, CA 90620
(714) 527-0196

Warner, William J.
P.O. Box 1363
Sugar Loaf, CA 92386
(909) 585-2612

Wegmann, William F.
P.O. Box 16052
South Lake, CA 961516052
(916) 885-4428

Wilson, W. L.
Western Centennials, Inc.
P.O. Box 2183
Golden, CO 81502
(303) 243-7806

GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	B & H - 190 ac all claims	Unpatented	Sec 6 T10N,R12W		41701
Warner, William J.	P.O. Box 1363 Sugar Loaf, CA 92386	3.7500%	Ben Hur - 10 ac total claim	Patent	Sec 6 T10N,R12W		
Kenton, Frank J., Jr.	4911 Leeds St. Simi Valley, CA 93063	8.7500%	Ben Hur	Patent	Sec 6 T10N,R12W		
Moore, Robert L.	3075 San Pasqual Pasadena, CA 91107	18.7500%	Ben Hur	Patent	Sec 6 T10N,R12W	429-190-13-01-8	
Moore, Robert S.	590 Castano Ave. Pasadena, CA 91107	18.7500%	Ben Hur	Patent	Sec 6 T10N,R12W		
Thagard, George F., Jr.	# 60 Linda Isle Newport Beach, CA 92600	50.0000%	Ben Hur	Patent	Sec 6 T10N,R12W	429-190-15-02-3	
Moore, Gaston A. & Wilhelmina, H/W	6150 West Wagoner Rd. Glendale, AZ 85308-1151	50.0000%	Bob Tail - 9.71 ac	Unpatented	Sec 6 T10N,R12W		85131
Daggs, Robert R., and Merlene K.	2038 Westwood Ct., #23 Lancaster, CA 93536	50.0000%	Bob Tail	Unpatented	Sec 6 T10N,R12W		85131
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Bobtail - 190 ac total all claims owned by V. Knight	Unpatented	Sec 6 T10N,R12W		218374
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Bonanza Amendment 320 ac total all claims owned	Unpatented	Sec 18 T10W, R12W		34772
Allen, Mary Ann B.	686 1/2 N. Coast Hwy. Laguna Beach, CA 92651	3.7500%	Calcium - 63.813 ac for all claims in Queen Esther group	Patent	Sec 6 T10N,R12W		
Barrow, Laura T.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Barrow, Thomas D.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Boyle, Barbara	Kingsley Manor 1055 N. Kingsley Dr. #201 Los Angeles, CA 90029	7.5000%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Boyle, John T.	1418 Pasqualito Ave. San Marino, CA 91108	3.7500%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W	429-190-11-01--1	
Letteau, Betty B.	9255 Doheny Rd. #3002 Los Angeles, CA 90069-3248	6.6700%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Letteau, Judge Robert M.	723 No. Roxbury Drive Beverly Hills, CA 90210	1.6650%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mingst, Caryll Sprague	Mudd Estate J. Arthur Greenfield & Co.	6.2500%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		

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Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024						
Mudd, Harvey II	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	5.0000%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, Henry T., Jr.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	5.0000%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, John W.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	5.0000%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W	429-190-11-02-1	
Mudd, Victoria Kingston	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	5.0000%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, Virginia Bell	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	5.0000%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Nicodemus, Roger E.	733 Briar Hill Circle Simi Valley, CA 93065	1.6650%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Cynthia	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	6.2500%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Elizabeth Mudd	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	6.2500%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Norman F., III	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	6.2500%	Calcium - Queen Esther group	Patent	Sec 6 T10N,R12W		
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Carolyn	Unpatented	Sec 6 T10N,R12W		41691
Knight, Virginia	540 South Arden Blvd.	100.0000%	Carolyn Millsite - 190 ac Total	Unpatented	Sec 6 T10N,R12W		41689

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GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name		Patent/ Unpatented/Fee	Location	APN	CAMC #	
	Los Angeles, CA 90020								
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Charity		Unpatented	Sec 6 T10N,R12W		41697	
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Consolidated		Unpatented	Sec 18 T10W, R12W		34767	
Karma Wegmann Corp. (GQM)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Desert Rose		Unpatented	Sec 6 T10N,R12W		39600	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Dolly X		Unpatented	Sec 6 T10N,R12W		189836	
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Echo		Patent	Sec 6 T10N,R12W	429-190-21-00-2C		
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Elephant		Unpatented	Sec 6 T10N,R12W		41696	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Elephant Extension		Unpatented	Sec 6 T10N,R12W		41695	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Excelsior		Unpatented	Sec 6 T10N,R12W		41693	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Faith 1		Unpatented	Sec 6 T10N,R12W		218369	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Faith 2		Unpatented	Sec 6 T10N,R12W		218370	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Faith 3		Unpatented	Sec 6 T10N,R12W		218371	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Faith 4		Unpatented	Sec 6 T10N,R12W		218372	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Faith 5		Unpatented	Sec 6 T10N,R12W		218373	
Akin, Charles Jr.	7630 Via Del Reposo Scottsdale, AZ 85258	12.5000%	Fee Land -20 net ac	160 total	Fee	Sec 7, T10N, R12 W	429-020-02-00-7 see S W Refining		7630 Via
Akin-Hatch, Deann	61535 So Hwy 97-9 #150 Bend, OR 97702	12.5000%	Fee Land -20 net ac	160 total	Fee	Sec 7, T10N, R12 W	429-020-02-00-7 see S W Refining		61535 So.
Birtle, Mary J. Southwest Refining	5028 Ladera Vista Dr. Camarillo, CA 93012	75.0000%	Fee Land - 120 net ac	160	Fee	Sec 7, T10N, R12 W	429-020-02-00-7		
Birtle, Mary J. Southwest Refining (GQM)	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Fee Land - 10- ac		Fee	Sec 6, T10N, R12W	429-190-04-00-3		
Birtle, Mary J. Southwest Refining (GQM)	5028 Ladera Vista Dr.	100.0000%	Fee Land - 19.18 ac		Fee	Sec 6, T10N, R12W	429-190-05-00-6		

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GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Camarillo, CA 93012						
Bruce, Howard E. Estate of Min. Int. below 500'	c/o Nancy Ellen Hassard 12694 Mirado Ave.	25.0000%	Fee Land - 134.61 ac	Fee	Sec 36, T11N, R13W	N/A	
Cruz (GQM)	Grand Terrace, CA 92324 8103 Los Ranchos Dr. Austin, TX 78749	100.0000%	Fee Land - 40 ac	Fee	Sec 1, T10N,R13W	345-052-24-00-3	
Golden Queen Mining Co. (Bezzina)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2.5 ac	Fee	Sec 1, T10N,R13W	345-051-32-00-9	
Golden Queen Mining Co. (Courtney)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 10 ac	Fee	Sec 1, T10N,R132W	345-051-28-00-8	
Golden Queen Mining Co. (Dupont)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2.5 ac	Fee	Sec 1, T10N, R13W	345-051-31-00-6	
Golden Queen Mining Co. (F.A.M. CO)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2.54 ac	Fee	Sec 1, T10N, R13W	345-051-34-00-5	
Golden Queen Mining Co (Freddie Mack)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2.28 ac	Fee	Sec 31, T11N, R13W	427-344-08-00-6	
Golden Queen Mining Co. (Gillespie)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 10 ac	Fee	Sec 1, T10N, R13W	345-052-15-00-7	
Golden Queen Mining Co. (Goedecke)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 10.01 ac	Fee	Sec 1, T10N, R13W	345-052-18-00-6	
Golden Queen Mining Co. (Griep)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 19.89 ac	Fee	Sec 1, T10N, R13W	345-051-12-00-01	
Golden Queen Mining Co. (Heineman)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2 ac	Fee	Sec 1, T10N, R13W	345-051-21-00-7	
Golden Queen Mining Co. (Janssen)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2.7 ac	Fee	Sec 1, T10N, R13W	345-051-22-00-0	
Golden Queen Mining Co. (Lamunyon)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 4.1 ac	Fee	Sec 1, T10N, R13W	345-051-30-00-3	
Golden Queen Mining Co. (Meier)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2.6 ac	Fee	Sec 1, T10N, R13W	345-051-26-00-2	
Golden Queen Mining Co. (Mojave Silver Ptnr.)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 5.68 ac	Fee	Sec 5, SW SW SW	246-020-02-00-4	
Golden Queen Mining Co. (Munson)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 40 ac	Fee	Sec 1, T10N, R133	345-052-04-00-5 345-052-04-00-2	
Golden Queen Mining Co. (Peck)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 29.45 ac	Fee	Sec 1, T10N, R13W	345-052-13-00-4 345-052-13-00-1	

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GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Golden Queen Mining Co. (Prentice)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2.07 ac	Fee	Sec 36, T11N, R13W	427-344-05-00-3C	
Golden Queen Mining Co. (Rice)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2.6 ac	Fee	Sec 1. T10N, R13W	345-051-25-00-9	
Golden Queen Mining Co. (Wood)	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Fee Land - 2.47 ac	Fee	Sec 1, T10N, R13W	345-051-33-00-2	
Gupta (GQM)	9435 Venice Blvd. Culver City, CA 90232	100.0000%	Fee Land - 43.41 ac	Fee	Sec 1, T10N, R13W	345-052-01-00	
Soledad Mojave Mining Syndicate	932 Springwood Lane Encinitas, CA 92024	100.0000%	Fee Land - 320 ac	Fee	Sec 7, T10N, R12W	429-020-01-00-4	
*Stelzner, Thomas Et.Al.	534 Selmart Lane Petaluma, CA 94954-2500	100.0000%	Fee Land - 154.32 ac	Fee	Sec 5, T10N,R12W	246-020-01-00-1	
Wegmann, W.F. (GQM)	P O Box 16052 South Lake, CA 96151-6052	100.0000%	Fee Land - 37.82 ac	Fee	Sec 6, T10N, R12W	429-190-06-00-9	
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GAP No. 1	Unpatented	Sec 6 T10N,R12W		199586
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GAP No. 2	Unpatented	Sec 8 T10N,R12 W		199587
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GAP No. 3	Unpatented	Sec 8 T10N,R12 W		199588
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GAP No. 4	Unpatented	Sec 8 T10N,R12 W		199589
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GAP No. 5	Unpatented	Sec 8 T10N,R12 W		231702
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GAP No. 6a	Unpatented	Sec 8 T10N,R12 W		238923
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GBP No. 1 - 200 ac all GBP,	Unpatented	Sec 6 T10N,R12W		196345
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GBP No. 2	Unpatented	Sec 6 T10N,R12W		196346
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GBP No. 3	Unpatented	Sec 6&7 T10N, R12W,		196347
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Gem - 7 ac	Unpatented	Sec 6 T10N,R12W		49891
Western Centennials Inc., W.L. Wilson	P O Box 2183	100.0000%	Golden Queen - 7.423 ac	Patent	Sec 6 T10N,R12W	429-190-10-00-0	

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GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Western Centennials Inc., W.L. Wilson	P O Box 2183 Grand Junction, CO 81502-2183	100.0000%	Golden Queen - 7.423 ac	Patent	Sec 6 T10N,R12W	429-190-10-00-0	
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Golden Queen No. 1 - 74.25 ac	Unpatented	Sec 6 T10N,R12W		86322
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Golden Queen No. 2	Unpatented	Sec 6 T10N,R12W		86323
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Golden Queen No. 3	Unpatented	Sec 6 T10N,R12W		86324
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Golden Queen No. 4	Unpatented	Sec 6 T10N,R12W		86325
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Golden Queen No. 5	Unpatented	Sec 6 T10N,R12W		86326
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Golden Queen No. 6	Unpatented	Sec 6 T10N,R12W		86327
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Golden Queen No. 7	Unpatented	Sec 6 T10N,R12W		86328
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Golden Queen No. 8	Unpatented	Sec 6 T10N,R12W		86329
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 14	Unpatented	Sec 12 T10N,R13W		196329
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 15	Unpatented	Sec 12 T10N,R13W		196330
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 16	Unpatented	Sec 12 T10N,R13W		196331
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 17	Unpatented	Sec 12 T10N,R13W		196332
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 18	Unpatented	Sec 12 T10N,R13W		196333
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 19	Unpatented	Sec 12 T10N,R13W		196334
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 20	Unpatented	Sec 12 T10N,R13W		196335
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 21	Unpatented	Sec 12 T10N,R13W		196336
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 22	Unpatented	Sec 12 T10N,R13W		196337

GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 23	Unpatented	Sec 12 & 7 T10N,R13W		196338
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 24	Unpatented	Sec 2 & 13 T10N, R13W		196339
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 25	Unpatented	Sec 2 & 13 T10N, R13W		196340
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 26	Unpatented	Sec 2 & 13 T10N, R13W		196341
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 27	Unpatented	Sec 2 & 13 T10N, R13W		196342
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	GQM No. 28	Unpatented	Sec 2 & 13 T10N, R13W		196343
Birtie, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Gray Eagle - 35.960 w/Gypsy	Patent	Sec 6 T10N,R12W	429-190-22-00-5C	
Birtie, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Gypsy	Patent	Sec 6 T10N,R12W	429-190-22-00-5C	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Herman	Unpatented	Sec 6 T10N,R12W		41694
Godfrey, Eric W. (GQM)	531 Stephens Fillmore, CA 93015	7.4000%	Homestake	Unpatented	Sec 6 T10N,R12W		36726
Meehl, Grace W. (GQM)	714 Valita Street Venice, CA 90291	44.5000%	Homestake	Unpatented	Sec 6 T10N,R12W		36726
Meehl, John G. (GQM)	239 Kittery Place San Ramone, CA 94583	7.4000%	Homestake	Unpatented	Sec 6 T10N,R12W		36726
Meehl, Mary aka May (GQM)	3730 Trieste Dr. Carlsbad, CA 92008	33.3000%	Homestake	Unpatented	Sec 6 T10N,R12W		36726
Sigl, James P. (GQM)	714 Valita Street Venice, CA 90291	7.4000%	Homestake	Unpatented	Sec 6 T10N,R12W		36726
Godfrey, Eric W. (GQM)	531 Stephens Fillmore, CA 93015	7.4000%	Homestake Millsite	Unpatented	Sec 32 T11N,R12W		42415
Meehl, Grace W. (GQM)	714 Valita Street Venice, CA 90291	44.5000%	Homestake Millsite	Unpatented	Sec 32 T11N,R12W		42415
Meehl, John G. (GQM)	239 Kittery Place San Ramone, CA 94583	7.4000%	Homestake Millsite	Unpatented	Sec 32 T11N,R12W		42415
Meehl, Mary aka May (GQM)	3730 Trieste Dr.	33.3000%	Homestake Millsite	Unpatented	Sec 32 T11N,R12W		42415

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Carlsbad, CA 92008						
Sigl, James P. (GQM)	714 Valita Street Venice, CA 90291	7.4000%	Homestake Millsite	Unpatented	Sec 32 T11N,R12W		42415
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Hope	Patent	Sec 6 T10N,R12W	429-190-20-00-9C	
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Hope	Unpatented	Sec 6 T10N,R12W		41699
Allen, Mary Ann B.	560 East Villa St. Apt. 1011 Pasadena, CA 91101	3.7500%	Independent	Patent	Sec 6 T10N,R12W		
Barrow, Laura T.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Independent	Patent	Sec 6 T10N,R12W		
Barrow, Thomas D.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Independent	Patent	Sec 6 T10N,R12W		
Boyle, Barbara	Kingsley Manor 1055 N. Kingsley Dr. #201 Los Angeles, CA 90029	7.5000%	Independent	Patent	Sec 6 T10N,R12W		
Boyle, John T.	1418 Pasqualito Ave. San Marino, Ca 91108	3.7500%	Independent	Patent	Sec 6 T10N,R12W	429-190-11-01--1	
Letteau, Betty B.	9255 Doheny Rd. #3002 Los Angeles, CA 90069-3248	6.6700%	Independent	Patent	Sec 6 T10N,R12W		
Letteau, Judge Robert M.	723 No. Roxbury Drive Beverly Hills, CA 90210	1.6650%	Independent	Patent	Sec 6 T10N,R12W		
Mingst, Caryll Sprague	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	6.2500%	Independent	Patent	Sec 6 T10N,R12W		
Mudd, Harvey II	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	5.0000%	Independent	Patent	Sec 6 T10N,R12W		
Mudd, Henry T., Jr.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	5.0000%	Independent	Patent	Sec 6 T10N,R12W		
Mudd, John W.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000	5.0000%	Independent	Patent	Sec 6 T10N,R12W	429-190-11-02-1	

GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Mudd, Victoria Kingston	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	5.0000%	Independent	Patent	Sec 6 T10N,R12W		
Mudd, Virginia Bell	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	5.0000%	Independent	Patent	Sec 6 T10N,R12W		
Nicodemus, Roger E.	733 Briar Hill Circle Simi Valley, CA 93065	1.6650%	Independent	Patent	Sec 6 T10N,R12W		
Sprague, Cynthia	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	6.2500%	Independent	Patent	Sec 6 T10N,R12W		
Sprague, Elizabeth Mudd	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	6.2500%	Independent	Patent	Sec 6 T10N,R12W		
Sprague, Norman F., III	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, CA 90024	6.2500%	Independent	Patent	Sec 6 T10N,R12W		
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Intention - 68.84 ac Total ac	Patent	Sec 6 T10N,R12W	429-190-07-00-2	
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Junction	Patent	Sec 8 T10N,R12 W	429-210-02-00-2	
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	King of Desert Amendment	Unpatented	Sec 18 T10W, R12W		34771
Burton, Cecil	P O Box 2 La Grange, CA 95329	50.0000%	Little Chucker No. 1 - 6 ac both	Unpatented	Sec 8 T10N,R12 W		70019
Burton, Terry	5800 Pioneer Rd. #1 Mojave, CA 93501	50.0000%	Little Chucker No. 1	Unpatented	Sec 8 T10N,R12 W		70019
Burton, Terry	5800 Pioneer Rd. #1 Mojave, CA 93501	50.0000%	Little Chucke No. 2	Unpatented	Sec 8 T10N,R12 W		70020
Burton, Cecil	P O Box 2 La Grange, CA 95329	50.0000%	Little Chucker No. 2	Patent	Sec 8 T10N,R12 W		70020

GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Marilyn	Unpatented	Sec 6 T10N,R12W		41692
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Marilyn Millsite	Unpatented	Sec 6 T10N,R12W		41690
Benson, Mary M.	1702 Ninth Avenue Yuma AZ 85364	5.0000%	Mojave Bonanza	Patent	Sec 6 T10N,R12W	429-190-12-00-6	
Condit, Alice	c/o Barbara Condit 402 E. McKinley Pomona, CA 91767	12.5000%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Cousins, Joyce	18717 Mill Villa Rd. #626 Jamestown, CA 95327	5.0000%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Fisher, Theodora Frisbee	Kensington Place 1580 Geary Rd. Walnut Creek, CA 94596	4.1670%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Frisbee, Don C.	1500 S W First Ave, Ste 1005 Portland, OR 97496	4.1670%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Hart, Barbara Frisbee	P O Box 600 Winston, OR 97496	4.1670%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Iten, Janice	1010 Maple Drive Ukiah, CA 95482	5.0000%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Lynn, William M.	2100 El Molina Ave. San Marino, Ca 91108	15.0000%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
McMillen, Emma G.	767 Clara Drive Palo Alto, CA 94303	5.0000%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
McMillen, H.L. (Mac)	1427 Madera Way Millbrae, CA 94030-2826	5.0000%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Smith, Selma M.	5272 Lindley Ave. Encino, CA 91316	9.0000%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Starke, George O.	9442 Mast Blvd. Santee, CA 92071	0.50%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Starke, Royden W.	2010 Donahue Drive E. Cajon, CA 92019	0.50%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Walston, Wilbur	8438 Venus Drive Buena Park, CA 90620	25.00%	Mojave Bonanza	Patent	Sec 6 T10N,R12W		
Knight, Virginia	540 South Arden Blvd. Los Angeles, CA 90020	100.0000%	Mountain View	Unpatented	Sec 6 T10N,R12W		41698

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GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	North Star - 5 ac	Unpatented	Sec 6 T10N,R12W		49887
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Patience - 18 ac	Unpatented	Sec 6 T10N,R12W		39596
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Pearl 22.550 ac comb w/hope	Patent	Sec 6 T10N,R12W	429-190-20-00-9C	
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 1 - 200 ac total all Pratt 1-	Unpatented	Sec 12 T10N,R13W		218305
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 10	Unpatented	Sec 12 T10N,R13W		218314
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 11	Unpatented	Sec 12 T10N,R13W		218315
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 12	Unpatented	Sec 12 T10N,R13W		218316
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 13	Unpatented	Sec 12 T10N,R13W		218317
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 14	Unpatented	Sec 12 T10N,R13W		218318
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 16	Unpatented	Sec 12 T10N,R13W		218319
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 17	Unpatented	Sec 12 T10N,R13W		218320
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 2	Unpatented	Sec 12 T10N,R13W		218306
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 3	Unpatented	Sec 12 T10N,R13W		218307
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 4	Unpatented	Sec 12 T10N,R13W		218308
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 5	Unpatented	Sec 12 T10N,R13W		218309
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 6	Unpatented	Sec 12 T10N,R13W		218310
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 7	Unpatented	Sec 12 T10N,R13W		218311

GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 8	Unpatented	Sec 12 T10N,R13W		218312
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Pratt 9	Unpatented	Sec 12 T10N,R13W		218313
Allen, Mary Ann B.	560 East Villa St. Apt. 1011 Pasadena, CA 91101	3.7500%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Barrow, Laura T.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Barrow, Thomas D.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Boyle, Barbara	Kingsley Manor 1055 N. Kingsley Dr. #201 Los Angeles, CA 90029	7.5000%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Boyle, John T.	1418 Pasqualito Ave. San Marino, Ca 91108	3.7500%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W	429-190-11-01--1	
Letteau, Betty B.	9255 Doheny Rd. #3002 Los Angeles, CA 90069-3248	6.6700%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Letteau, Judge Robert M.	723 No. Roxbury Drive Beverly Hills, CA 90210	1.6650%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mingst, Caryll Sprague	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, Harvey II	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, Henry T., Jr.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, John W.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W	429-190-11-02-1	
Mudd, Victoria Kingston	Mudd Estate J. Arthur Greenfield & Co.	5.0000%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		

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GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024						
Mudd, Virginia Bell	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Nicodemus, Roger E.	733 Briar Hill Circle Simi Valley, CA 93065	1.6650%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Cynthia	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Elizabeth Mudd	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Norman F., III	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Quartet - Queen Esther group	Patent	Sec 6 T10N,R12W		
Allen, Mary Ann B.	560 East Villa St. Apt. 1011 Pasadena, CA 91101	3.7500%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Barrow, Laura T.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Barrow, Thomas D.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Boyle, Barbara	Kingsley Manor 1055 N. Kingsley Dr. #201 Los Angeles, CA 90029	7.5000%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Boyle, John T.	1418 Pasqualito Ave. San Marino, Ca 91108	3.7500%	Queen Esther (group)	Patent	Sec 6 T10N,R12W	429-190-11-01--1	
Letteau, Betty B.	9255 Doheny Rd. #3002 Los Angeles, CA 90069-3248	6.6700%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Letteau, Judge Robert M.	723 No. Roxbury Drive Beverly Hills, CA 90210	1.6650%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Mingst, Caryll Sprague	Mudd Estate J. Arthur Greenfield & Co.	6.2500%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024						
Mudd, Harvey II	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Mudd, Henry T., Jr.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Mudd, John W.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Queen Esther (group)	Patent	Sec 6 T10N,R12W	429-190-11-02-1	
Mudd, Victoria Kingston	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Mudd, Virginia Bell	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Nicodemus, Roger E.	733 Briar Hill Circle Simi Valley, CA 93065	1.6650%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Sprague, Cynthia	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Sprague, Elizabeth Mudd	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Sprague, Norman F., III	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Queen Esther (group)	Patent	Sec 6 T10N,R12W		
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Queen of Sheba - 320 ac total	Unpatented	Sec 18 T10W, R12W		34768
Hamilton, Marie & Stussy, John & Betty	3010 Skywood	100.0000%	Queen/King Soledad	Unpatented	Sec 18 T10W, R12W		34768

GOLDEN QUEEN MINING COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LAND HOLDINGS

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Orange, CA 92665						
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Rare Bear # 1 Millsite - 15 ac all	Unpatented	Sec 32 T11N,R12W		239234
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Rare Bear # 2 Millsite	Unpatented	Sec 32 T11N,R12W		239235
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Rare Bear #3 Millsite	Unpatented	Sec 32 T11N,R12W		239236
Allen, Mary Ann B.	560 East Villa St. Apt. 1011 Pasadena, CA 91101	3.7500%	Regina - Queen Esther group	Patent	Sec 6 T10N,R12W		
Barrow, Laura T.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Regina	Patent	Sec 6 T10N,R12W		
Barrow, Thomas D.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Regina	Patent	Sec 6 T10N,R12W		
Boyle, Barbara	Kingsley Manor 1055 N. Kingsley Dr. #201 Los Angeles, CA 90029	7.5000%	Regina	Patent	Sec 6 T10N,R12W		
Boyle, John T.	1418 Pasqualito Ave. San Marino, Ca 91108	3.7500%	Regina	Patent	Sec 6 T10N,R12W	429-190-11-01--1	
Letteau, Betty B.	9255 Doheny Rd. #3002 Los Angeles, CA 90069-3248	6.6700%	Regina	Patent	Sec 6 T10N,R12W		
Letteau, Judge Robert M.	723 No. Roxbury Drive Beverly Hills, CA 90210	1.6650%	Regina	Patent	Sec 6 T10N,R12W		
Mingst, Caryll Sprague	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Regina	Patent	Sec 6 T10N,R12W		
Mudd, Harvey II	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Regina	Patent	Sec 6 T10N,R12W		
Mudd, Henry T., Jr.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Regina	Patent	Sec 6 T10N,R12W		
Mudd, John W.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000	5.0000%	Regina	Patent	Sec 6 T10N,R12W	429-190-11-02-1	

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Los Angeles, Ca 90024						
Mudd, Victoria Kingston	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Regina	Patent	Sec 6 T10N,R12W		
Mudd, Virginia Bell	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Regina	Patent	Sec 6 T10N,R12W		
Nicodemus, Roger E.	733 Briar Hill Circle Simi Valley, CA 93065	1.6650%	Regina	Patent	Sec 6 T10N,R12W		
Sprague, Cynthia	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Regina	Patent	Sec 6 T10N,R12W		
Sprague, Elizabeth Mudd	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Regina	Patent	Sec 6 T10N,R12W		
Sprague, Norman F., III	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Regina	Patent	Sec 6 T10N,R12W		
Allen, Mary Ann B.	560 East Villa St. Apt. 1011 Pasadena, CA 91101	3.7500%	Rex - Queen Esther group	Patent	Sec 6 T10N,R12W		
Barrow, Laura T.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Rex	Patent	Sec 6 T10N,R12W		
Barrow, Thomas D.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Rex	Patent	Sec 6 T10N,R12W		
Boyle, Barbara	Kingsley Manor 1055 N. Kingsley Dr. #201 Los Angeles, CA 90029	7.5000%	Rex	Patent	Sec 6 T10N,R12W		
Boyle, John T.	1418 Pasqualito Ave. San Marino, Ca 91108	3.7500%	Rex	Patent	Sec 6 T10N,R12W	429-190-11-01--1	
Letteau, Betty B.	9255 Doheny Rd. #3002 Los Angeles, CA 90069-3248	6.6700%	Rex	Patent	Sec 6 T10N,R12W		
Letteau, Judge Robert M.	723 No. Roxbury Drive	1.6650%	Rex	Patent	Sec 6 T10N,R12W		

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Beverly Hills, CA 90210						
Mingst, Caryll Sprague	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Rex	Patent	Sec 6 T10N,R12W		
Mudd, Harvey II	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Rex	Patent	Sec 6 T10N,R12W		
Mudd, Henry T., Jr.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Rex	Patent	Sec 6 T10N,R12W		
Mudd, John W.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Rex	Patent	Sec 6 T10N,R12W	429-190-11-02-1	
Mudd, Victoria Kingston	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Rex	Patent	Sec 6 T10N,R12W		
Mudd, Virginia Bell	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	5.0000%	Rex	Patent	Sec 6 T10N,R12W		
Nicodemus, Roger E.	733 Briar Hill Circle Simi Valley, CA 93065	1.6650%	Rex	Patent	Sec 6 T10N,R12W		
Sprague, Cynthia	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Rex	Patent	Sec 6 T10N,R12W		
Sprague, Elizabeth Mudd	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000 Los Angeles, Ca 90024	6.2500%	Rex	Patent	Sec 6 T10N,R12W		
Sprague, Norman F., III	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd., Ste. 1000	6.2500%	Rex	Patent	Sec 6 T10N,R12W		

Owner	Address	Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Los Angeles, Ca 90024						
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Reymert	Patent	Sec 6 T10N,R12W	429-190-07-00-2	
Campbell, Louis G., Jr.	821 Crater Camp Dr. Calabasas, CA 91302	12.5000%	Sailor Boy	Patent	Sec 6 T10N,R12W	429-190-13-02-7C	
Moore, Robert L.	3075 San Pasqual Pasadena, CA 91107	18.7500%	Sailor Boy	Patent	Sec 6 T10N,R12W	429-190-13-01-8C	
Moore, Robert S.	590 Castano Ave. Pasadena, CA 91107	18.7500%	Sailor Boy	Patent	Sec 6 T10N,R12W		
Thargard, George F., Jr.	#60 Linda Isle Newport Beach, CA 92600	50.0000%	Sailor Boy	Patent	Sec 6 T10N,R12W	429-190-13-03-6C	
Campbell, Louis G., Jr.	821 Crater Camp Dr. Calabasas, CA 91302	12.5000%	Sailor Girl	Patent	Sec 6 T10N,R12W	429-190-13-02-7C	
Moore, Robert L.	3075 San Pasqual Pasadena, CA 91107	18.7500%	Sailor Girl	Patent	Sec 6 T10N,R12W	429-190-13-01-8C	
Moore, Robert S.	590 Castano Ave. Pasadena, CA 91107	18.7500%	Sailor Girl	Patent	Sec 6 T10N,R12W		
Thargard, George F., Jr.	#60 Linda Isle Newport Beach, CA 92600	50.0000%	Sailor Girl	Patent	Sec 6 T10N,R12W	429-190-13-03-6C	
Allen, Cheryl Catherine	686 1/2 N. Coast Hwy. Laguna Beach, CA 92651	2.1450%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Allen, Douglas Michael	17497 County Rd. #501 Bayfield, CO 81122	2.1450%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Allen, Scott Thomas	304 Clover Lane Fort Collins, Co 80524	2.1450%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Golden Queen Mining Co. (Allen,Steve)	P O Box 878 Rosamond, Ca 93560	2.1450%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Brodine III, Robert C.	6226 West 10052 N Highland, UT 84003	6.0000%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Hanly, Teresa Gail	26382 Mimosa Lane Mission Viejo, CA 92694-1924	2.1450%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Henry, Alma A.	Box 1267 Lyman, WY 82937-1267	2.9100%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Hodges, Beverly Nadine	unknown	2.9100%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
*Hodges, Ella et el	24410 Crenshaw Blvd.	2.9100%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		

(ldr/lndown xls)
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Owner	Address	Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Torrance, CA 90505						
Holmes Evans, Nancy	c/o Mary Slaughter 2540 N. Brimhall Mesa, AZ 85203	2.7270%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Holmes II, George I.	2876 E. Virginia Apache Junction, AZ 85219	2.7270%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W	429-190-14-01-1	
Holmes, Michael Edward	c/o Mary Slaughter 2540 N. Brimhall Mesa, AZ 85203	2.7270%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Holmes, Raymond R.	c/o Mary Slaughter 2540 N. Brimhall Mesa, AZ 85203	2.7270%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Golden Queen Mining Co. (Holmes, Ruby)	P O Box 878 Rosamond, CA 93560	6.0000%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Norton, Carlolyn E.	P O Box 1731 St. John, AZ 85436	1.4550%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Orr, Barbara C.	704 E. Lehi Road Mesa, AZ 85203	2.7270%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Pennington, Marcus A.	8322 Foothill Blvd. Sunland, CA 91040	6.0000%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Pennington, Marlowe	P O Box 4667 Palm Springs, CA 92263-4667	3.0000%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Slayton, Gean A.	P O Box 1772 St. John's, AZ 85436	1.4550%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Thargard, George F., Jr.	#60 Linda Isle Newport Beach, CA 92600	40.0000%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W	429-190-14-02-0 C	
Van Pelt, Donald Richard	P O Box 4667 Palm Springs, CA 92263-4667	3.0000%	Santa Ana Wedge	Patent	Sec 6 T10N,R12W		
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Santa Maria 1	Unpatented	Sec 6 T10N,R12W		39594
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Santa Maria 2	Unpatented	Sec 6 T10N,R12W		39595
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Silver Girl	Patent	Sec 6 T10N,R12W	429-190-07-00-2	
Karma Wegmann Corp. (GQM)	714 Valita Street	100.0000%	Silver Girl 2	Patent	Sec 6 T10N,R12W	429-190-07-00-2	

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Venice, CA 90291						
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Silver Girl Millsite - 1.581 ac	Patent	Sec 32 T11N,R12W	427-130-02-00-5	
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Silver Girl Millsite - 2 ac	Unpatented	Sec 32 T11N,R12W		39599
Allen, Cheryl Catherine	686 1/2 N. Coast Hwy. Laguna Beach, CA 92651	2.1450%	Silver Queen	Patent	Sec 6 T10N,R12W		
Allen, Douglas Michael	17497 County Rd. #501 Bayfield, CO 81122	2.1450%	Silver Queen	Patent	Sec 6 T10N,R12W		
Allen, Scott Thomas	304 Clover Lane Fort Collins, Co 80524	2.1450%	Silver Queen	Patent	Sec 6 T10N,R12W		
Golden Queen Mining Co. (Allen, Steve)	P O Box 878 Rosamond, Ca 93560	2.1450%	Silver Queen	Patent	Sec 6 T10N,R12W		
Brodine III, Robert C.	6226 West 10052 N Highland, UT 84003	6.0000%	Silver Queen	Patent	Sec 6 T10N,R12W		
Hanly, Teresa Gail	26382 Mimosa Lane Mission Viejo, CA 92694-1924	2.1450%	Silver Queen	Patent	Sec 6 T10N,R12W		
Henry, Alma A.	Box 1267 Lyman, WY 82937-1267	2.9100%	Silver Queen	Patent	Sec 6 T10N,R12W		
Hodges, Beverly Nadine	unknown	2.9100%	Silver Queen	Patent	Sec 6 T10N,R12W		
*Hodges, Ella et el	24410 Crenshaw Blvd. Torrance, CA 90505	2.9100%	Silver Queen	Patent	Sec 6 T10N,R12W		
Holmes Evans, Nancy	c/o Mary Slaughter 2540 N Brimhall Mesa, AZ 85203	2.7270%	Silver Queen	Patent	Sec 6 T10N,R12W		
Holmes II, George I.	2876 E. Virginia Apache Junction, AZ 85219	2.7270%	Silver Queen	Patent	Sec 6 T10N,R12W	429-190-15-01-4C	
Holmes, Michael Edward	c/o Mary Slaughter 2540 N. Brimhall Mesa, AZ 85203	2.7270%	Silver Queen	Patent	Sec 6 T10N,R12W		
Holmes, Raymond R.	c/o Mary Slaughter 2540 N. Brimhall Mesa, AZ 85203	2.7270%	Silver Queen	Patent	Sec 6 T10N,R12W		
Golden Queen Mining Co. (Holmes, Ruby)	P O Box 878 Rosamond, CA 93560	6.0000%	Silver Queen	Patent	Sec 6 T10N,R12W		

GOLDEN QUEEN MINING COMPANY, INC.
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Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Norton, Carlolyn E.	P O Box 1731 St. John, AZ 85436	1.4550%	Silver Queen	Patent	Sec 6 T10N,R12W		
Orr, Barbara C.	704 E. Lehi Road Mesa, AZ 85203	2.7270%	Silver Queen	Patent	Sec 6 T10N,R12W		
Pennington, Marcus A.	8322 Foothill Blvd. Sunland, CA 91040	6.0000%	Silver Queen	Patent	Sec 6 T10N,R12W		
Pennington, Marlowe	P O Box 4667 Palm Springs, CA 92263-4667	3.0000%	Silver Queen	Patent	Sec 6 T10N,R12W		
Slayton, Gean A.	P O Box 1772 St. John's, AZ 85436	1.4550%	Silver Queen	Patent	Sec 6 T10N,R12W		
Thargard, George F., Jr.	#60 Linda Isle Newport Beach, CA 92600	40.0000%	Silver Queen	Patent	Sec 6 T10N,R12W	429-190-15-02-0 C	
Van Pelt, Donald Richard	P O Box 4667 Palm Springs, CA 92263-4667	3.0000%	Silver Queen	Patent	Sec 6 T10N,R12W		
Allen, Cheryl Catherine	686 1/2 N. Coast Hwy. Laguna Beach, CA 92651	5.1498%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Allen, Douglas Michael	17497 County Rd. #501 Bayfield, CO 81122	5.1498%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Allen, Scott Thomas	304 Clover Lane Fort Collins, Co 80524	5.1498%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Golden Queen Mining Co. (Allen, Steve)	P O Box 878 Rosamond, Ca 93560	5.1498%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Hanly, Teresa Gail	26382 Mimosa Lane Mission Viejo, CA 92691-1924	5.1498%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Hodges, Beverly Nadine	unknown	9.7000%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
*Hodges, Ella et el	24410 Crenshaw Torrance, Ca 90505	9.7000%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Holmes Evans, Nancy	c/o Mary Slaughter 2540 N. Brimhall Mesa, AZ 85203	7.0900%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Holmes II, George I.	2876 E. Virginia Apache Junction, AZ 86219	7.0900%	Silver Queen Extension	Patent	Sec 6 T10N,R12W	429-190-15-01-4C	
Holmes, Michael Edward	c/o Mary Slaughter 2540 N. Brimhall	7.0900%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Mesa, AZ						
Holmes, Raymond R.	c/o Mary Slaughter 2540 N. Brimhall Mesa, AZ	7.0900%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Norton, Carolyn E.	P O Box 1731 St. John, AZ 85436	4.8500%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Orr, Barbara C.	704 E. Lehi Road Mesa, AZ 85203	7.0900%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Slayton, Gean A.	P O Box 1772 St. John's, AZ 85936	4.8500%	Silver Queen Extension	Patent	Sec 6 T10N,R12W		
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Silver Spray Amendment	Unpatented	Sec 18 T10W, R12W		34770
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 1 - 363 ac total all Sol 1-24	Unpatented	Sec 8 T10N,R12 W		130496
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 10	Unpatented	Sec 8 T10N,R12 W		130505
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 11	Unpatented	Sec 8 T10N,R12 W		130506
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 12	Unpatented	Sec 8 T10N,R12 W		130507
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 13	Unpatented	Sec 8 T10N,R12 W		130508
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 14	Unpatented	Sec 8 T10N,R12 W		130509
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 15	Unpatented	Sec 8 T10N,R12 W		130510
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 16	Unpatented	Sec 8 T10N,R12 W		130511
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 17	Unpatented	Sec 8 T10N,R12 W		130512
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 18	Unpatented	Sec 8 T10N,R12 W		130513
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 19	Unpatented	Sec 8 T10N,R12 W		130514

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 2	Unpatented	Sec 8 T10N,R12 W		130497
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 20	Unpatented	Sec 8 T10N,R12 W		130515
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 21	Unpatented	Sec 8 T10N,R12 W		130516
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 22	Unpatented	Sec 8 T10N,R12 W		130517
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 23	Unpatented	Sec 8 T10N,R12 W		130518
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 24	Unpatented	Sec 8 T10N,R12 W		130519
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 3	Unpatented	Sec 8 T10N,R12 W		130498
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 4	Unpatented	Sec 8 T10N,R12 W		130499
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 5	Unpatented	Sec 8 T10N,R12 W		130500
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 6	Unpatented	Sec 8 T10N,R12 W		130501
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 7	Unpatented	Sec 8 T10N,R12 W		130502
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 8	Unpatented	Sec 8 T10N,R12 W		130503
Golden Queen Mining Company, Inc.	P.O. Box 878 Rosamond, CA 93560-0878	100.0000%	Sol 9	Unpatented	Sec 8 T10N,R12 W		130504
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #1	Unpatented	Sec 18 T10W, R12W		192601
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #2	Unpatented	Sec 18 T10W, R12W		192602
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #3	Unpatented	Sec 18 T10W, R12W		192603
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #4	Unpatented	Sec 18 T10W, R12W		192604
Hamilton, Marie & Stussy, John & Betty	3010 Skywood	100.0000%	Sole #5	Unpatented	Sec 18 T10W, R12W		192605

GOLDEN QUEEN MINING COMPANY, INC.
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Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	Orange, CA 92665						
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #6	Unpatented	Sec 18 T10W, R12W		192606
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #7	Unpatented	Sec 18 T10W, R12W		192607
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #8	Unpatented	Sec 18 T10W, R12W		192608
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #9	Unpatented	Sec 18 T10W, R12W		192609
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #10	Unpatented	Sec 18 T10W, R12W		192610
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #11	Unpatented	Sec 18 T10W, R12W		192611
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #12	Unpatented	Sec 18 T10W, R12W		192612
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #13	Unpatented	Sec 18 T10W, R12W		192613
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #14	Unpatented	Sec 18 T10W, R12W		192614
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #15	Unpatented	Sec 18 T10W, R12W		192615
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #16	Unpatented	Sec 18 T10W, R12W		192616
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #17	Unpatented	Sec 18 T10W, R12W		202805/203
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #18	Unpatented	Sec 18 T10W, R12W		202806/203
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Sole #19	Unpatented	Sec 18 T10W, R12W		202807/203
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Soledad Ext. - 22.04 ac	Patent	Sec 6 T10N,R12W	429-190-18-00-4C	
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Soledad Ext. No. 1 - 4 ac	Patent	Sec 6 T10N,R12W	429-190-18-00-4C	
Birtle, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Soledad Ext. the So. 300' -	Patent	Sec 6 T10N,R12W	429-190-21-00-2C	

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GOLDEN QUEEN MINING COMPANY, INC.
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Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Birtie, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Soledad the So. 300' ext No.	Patent	Sec 6 T10N,R12W	429-190-19-00-1C	
Karma Wegmann Corp. (GQM)	714 Valita Street Venice, CA 90291	100.0000%	Southern Queen 29.98 ac for	Patent	Sec 8 T10N,R12 W	429-210-02-00-2	
Birtie, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	St. Patrick - 10.159 ac	Patent	Sec 6 T10N,R12W	429-190-20-00-9C	
Birtie, Mary J. & Southwestern Refining Corp.	5028 Ladera Vista Dr. Camarillo, CA 93012	100.0000%	Starlight - see Gray Eagle	Patent	Sec 6 T10N,R12W	429-190-17-00-1C	
Godfrey, Eric W. (GQM)	531 Stephens Fillmore, CA 93015	7.4000%	Tepeyac Hill	Unpatented	Sec 6 T10N,R12W		34226
Meehl, Grace W. (GQM)	714 Valita Street Venice, CA 90291	44.5000%	Tepeyac Hill	Unpatented	Sec 6 T10N,R12W		34226
Meehl, John G. (GQM)	239 Kittery Place San Ramone, CA 94583	7.4000%	Tepeyac Hill	Unpatented	Sec 6 T10N,R12W		34226
Meehl, Mary aka May (GQM)	3730 Trieste Dr. Carlsbad, CA 92008	33.3000%	Tepeyac Hill	Unpatented	Sec 6 T10N,R12W		34226
Sigl, James P. (GQM)	714 Valita Street Venice, CA 90291	7.4000%	Tepeyac Hill	Unpatented	Sec 6 T10N,R12W		34226
Allen, Mary Ann B.	560 East Villa St., Apt 1011 Pasadena, CA 91101	3.7500%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Barrow, Laura T.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Barrow, Thomas D.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Boyle, Barbara	Kingsley Manor 1055 N Kingsley Dr. #201 Los Angeles, CA 90029	7.5000%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Boyle, John T.	1418 Pasqualito Ave. San Marino, CA 91108	3.7500%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W	429-190-11-01--1	
Letteau, Betty B.	9288 Doheny Rd. #3002 Los Angeles, CA 90069-3248	6.6700%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Letteau, Judge Robert M.	723 N Roxbury Dr. Beverly Hills, Ca 90210	1.6650%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mingst, Caryll Sprague	Mudd Estate J. Arthur Greenfield & Co.	6.2500%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
	924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024						
Mudd, Harvey II	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, Henry T., Jr.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, John W.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W	429-190-11-02-1	
Mudd, Victoria Kingston	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, Virginia Bell	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Nicodemus, Roger E.	733 Briar Hill Circle Simi Valley, CA 93065	1.6650%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Cynthia	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	6.2500%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Elizabeth Mudd	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	6.2500%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Norman F., III	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	6.2500%	Thurston - Queen Esther group	Patent	Sec 6 T10N,R12W		
Allen, Mary Ann B.	560 East Villa St., Apt 1011 Pasadena, CA 91101	3.7500%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		

GOLDEN QUEEN MINING COMPANY, INC.
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Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Barrow, Laura T.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Barrow, Thomas D.	4605 Post Oak Place, Ste. 207 Houston, TX 77027-9728	12.5000%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Boyle, Barbara	Kingsley Manor 1055 N Kingsley Dr. #201 Los Angeles, CA 90029	7.5000%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Boyle, John T.	1418 Pasqualito Ave. San Marino, CA 91108	3.7500%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W	429-190-11-01--1	
Letteau, Betty B.	9255 Doheny Rd. #3002 Los Angeles , CA 90069-3248	6.6700%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Letteau, Judge Robert M.	723 N Roxbury Dr. Beverly Hills, Ca 90210	1.6650%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mingst, Caryll Sprague	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	6.2500%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, Harvey II	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, Henry T., Jr.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, John W.	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W	429-190-11-02-1	
Mudd, Victoria Kingston	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Mudd, Virginia Bell	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	5.0000%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		

Owner		Int %	Claim Name	Patent/ Unpatented/Fee	Location	APN	CAMC #
Nicodemus, Roger E.	733 Briar Hill Circle Simi Valley, CA 93065	1.6650%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Cynthia	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	6.2500%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Elizabeth Mudd	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	6.2500%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Sprague, Norman F., III	Mudd Estate J. Arthur Greenfield & Co. 924 Westwood Blvd. Ste 1000 Los Angeles, CA 90024	6.2500%	Tip Top - Queen Esther group	Patent	Sec 6 T10N,R12W		
Hamilton, Marie & Stussy, John & Betty	3010 Skywood Orange, CA 92665	100.0000%	Victoria	Unpatented	Sec 18 T10W, R12W		34769

*See Owners Mailing List for Names and address on Et. Al.

(ldr/lndown.xls)
revised 10/28/96

GRESHAM, VARNER, SAVAGE, NOLAN & TILDEN

LAW OFFICES

ALLEN B. GRESHAM
BRUCE D. VARNER
PHILIP M. SAVAGE, III
JOHN C. NOLAN
M. WILLIAM TILDEN
JAMES R. [illegible]
MARK A. OSTOICH
THOMAS N. JACOBSON
STEPHAN G. SALESON
ROBERT W. [illegible], JR.
ROBIN C. COCHRAN
DUKE D. ROUSE

[illegible]
MICHAEL DUANE DAVIS
GARY W. [illegible]
CRAIG O. DOBLER
RICHARD D. MARCA
MICHAEL O. WOLF
JAY C. [illegible]
PENELOPE ALEXANDER-KELLEY
TARA REILLY
[illegible] W. [illegible]
ELIZABETH ASHLEY BLANCO
DAVID CHRISTIAN SMITH

600 NORTH ARROWHEAD AVENUE, SUITE 300
SAN BERNARDINO, CALIFORNIA 92401
(909) 884-2171 · (619) 243-2889
TELECOPIER (909) 888-2120

WILLIAM [illegible] ([illegible])
DONALD W. JORDAN (1907-1940)
JOHN B. LONERGAN (RETIRED [illegible])

RIVERSIDE OFFICE
3750 UNIVERSITY AVENUE, SUITE 610
RIVERSIDE, CALIFORNIA 92501
TELEPHONE (909) 274-7777

August 14, 1996

<u>SENT FACSIMILE (805) 326-0191</u>
David A. Weiss
WZI Inc.
4700 Stockdale Highway
Suite 120
Bakersfield, California 93309

RE: Notice of Preparation of Comments from State Lands Commission

Dear Mr. Weiss:

Golden Queen Mining Company forwarded a copy of your letter dated July 23, 1996 concerning the above-referenced matter for my review and asked me to contact you. As indicated in the letter the State Lands Commission (SLC) retained an interest in Lots 2 and 20 in Section 6, Township 10 North, Range 12 West, SBM. Their interest is only to receive 6-1/2% of the gross for any mineral values removed from said land. Alex Gonzales of the SLC indicated to me his understanding that no mineral is at this time anticipated to be produced from SLC property. He indicated the letter was simply a notification of their interest and confirmation of their ongoing right to receive this royalty if production occurs. He acknowledged that the site was planned for a dump and other activities and expressed no concern with respect to these uses. Our understanding of the SLC's rights with respect to surface activity is consistent with this stance inasmuch as their sole retained interest is that of receiving royalty. In other words, they retain no rights of access, etc.

Please don't hesitate to contact me if I can provide additional information.

Sincerely,

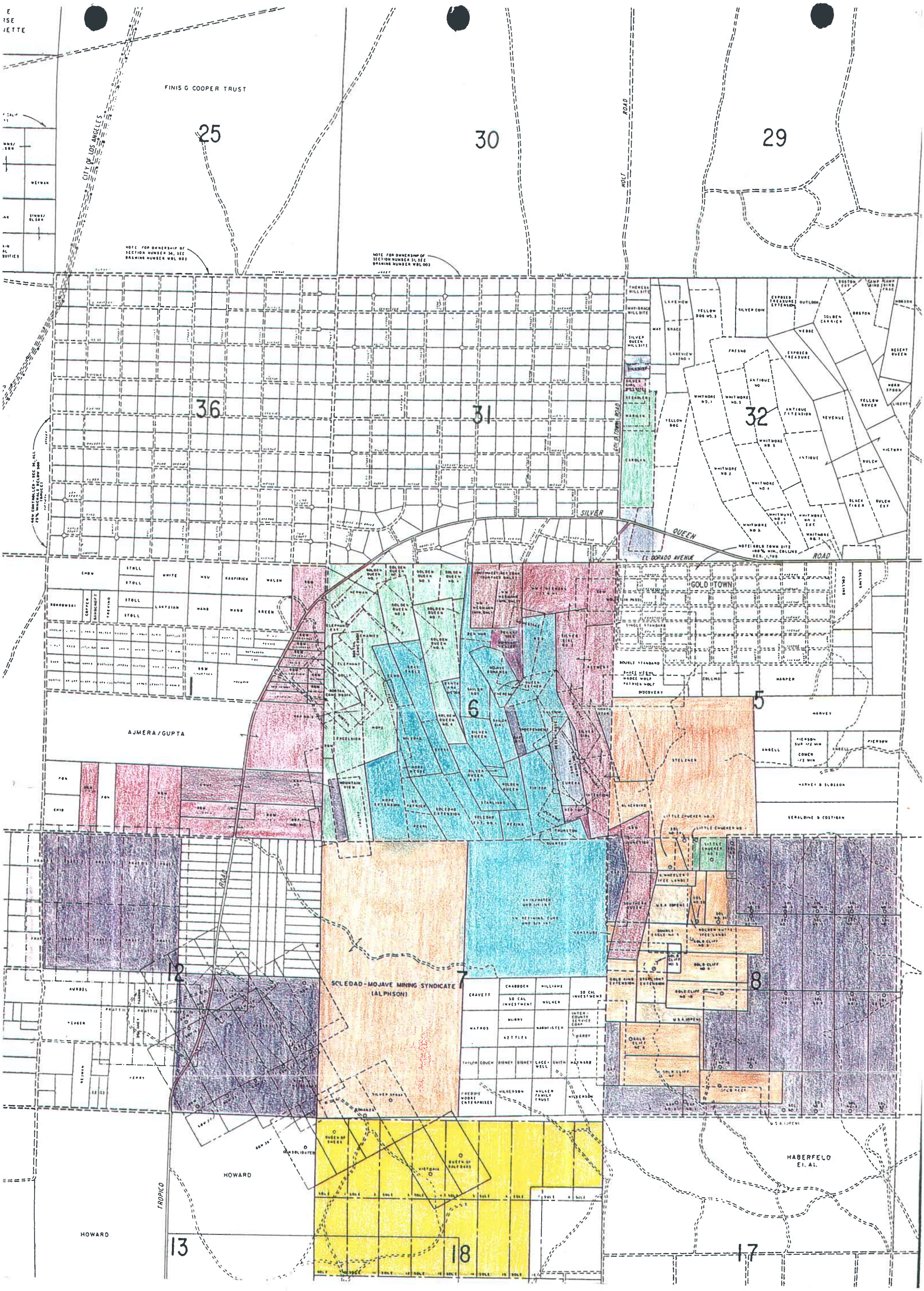
M. William Tilden
Of GRESHAM, VARNER, SAVAGE, NOLAN
& TILDEN

MWT:pw

cc: Richard Graeme (sent facsimile 805/256-6526)

8/14/96; N:\MWT\C086000\WEISS.001

GOLDEN QUEEN MINING, COMPANY, INC.
SOLEDAD MOUNTAIN PROJECT
LIST OF INTERESTS ACQUIRED FOR PROJECT



LEGEND:

- FEE/PATENT CLAIMS-LEASED
- FEE/PATENT CLAIMS-OTP
- FEE/PATENT CLAIMS-GQM OWNED
- FEE-LETTER OF INTENT/NEG.
- UNPATENT CLAIMS-LEASED
- UNPATENT CLAIMS-OTP
- UNPATENT CLAIMS-GQM OWNED

GOLDEN QUEEN MINING CO., INC.
LAND STATUS MAP
LDR - ~~10-23-96~~
12/1/96

Attachment B

BIOLOGICAL AND SOIL RESOURCE EVALUATION
FOR
SOLEDAD MOUNTAIN PROJECT

Prepared for:
Golden Queen Mining Co. Inc.
2997 Desert Street, Suite #4
Rosamond, California 93560

Prepared by:
Samuel A. Bamberg, Ph.D.
Ingrid E. Hanne, M.S.
Bamberg Associates
26050 E. Jamison Cir.
Aurora, Colorado 80016

July 1995
Revised November 1995
Revised April 1997

07330010.083

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SUMMARY

The Soledad Mountain Project site is a proposed gold mine near Mojave, California, which will be operated by the Golden Queen Mining Company. This report presents the results of our earlier soils and biological inventories in 1989/90, and a subsequent update in 1995 as a baseline study. In this report, we evaluate the soils and biological resources of Soledad Mountain and present this information for permits, applications, and future reclamation planning and for use in determining impacts and mitigation measures. The principal findings of these studies were the following:

- Soils are skeletal with little profile, and generally rocky or pebbly loams on the slopes, and sandy loams on alluvial fans and flats,
- The general lack of soil development, suitable surface horizons, and coarse texture are major limitations for soil salvage and potential for use in reclamation,
- Vegetation is a creosote bush shrub-scrub on the lower alluvial fans and on the mountain slopes is a mixed shrub/grass type; vegetation is fairly diverse and productive, however the repeated disturbances and burns have locally reduced plant cover, species diversity, and increased annual grasses and weeds,
- Wildlife population are low due to the desert climate, burns, and alterations of habitats, and high winds; wildlife species present are typical for desert habitats with small mammals, reptiles, birds, and their predators as dominant components,
- Three animals of possible concern were potentially present from the threatened and endangered species lists for the federal and California agencies, *Plecotus townsendii* (Townsend's big-eared bat), *Gopherus agassizii* (desert tortoise), and *Citellus mohavensis* (Mohave ground squirrel); specific surveys conducted for each species failed to observe any of these animals present on the site; species are not considered threatened by the Soledad Mountain Project.

Soledad Mountain is an isolated circular volcanic peak about three miles in diameter, rising out of the alluvial flats in northwestern Antelope Valley near the Tehachapi Mountains. Elevations on the mountain range from 2,800 feet mean sea level (msl) at the base to 4,190 feet msl at the highest peak. The slopes are steep with rock outcrops and residual weathered rock and soil below the outcrops. Alluvial fans and flats surround the mountain on all sides except for the northeast. The climate is typical of the Californian deserts with hot, dry summers and cool winters with some moisture and strong and persistent winds. Temperatures range from 70 to 105 degrees fahrenheit in the summer

and 27 to 60 degrees fahrenheit in the winter. Average precipitation is approximately five inches per year with the majority of the rainfall occurring in the winter months from frontal storms. Winds are strong and persistent.

The soil and biological resources are influenced by the desert climate and dry substrate conditions. Soils are generally rocky or pebbly loams on the slopes, and sandy loams on alluvial fans and flats. The vegetation consists of a creosote/burrobush type on the flats and alluvial fans below the mountain. Wildlife is fairly diverse, however populations are small and activity is seasonal. The mountain is characterized by rock outcrops and rocky soils with predominantly desert shrub-grass species that have been altered by frequent burning, and by recreation and mine related disturbances. The human disturbance on the mountain stems from historic mining activities, previous and recent mineral exploration, and past and recent burns. The two activities most influencing biological and soil resources are the previous mining and recent exploration, as well as the repeated fires highly altering the vegetation.

The soil types are related to rock types and substrates influenced by the topography on and around Soledad Mountain. Six soil series were identified and mapped. The soils have a wide range of textures depending on the parent material and degree of weathering. Soils derived from rock altered by hydrothermal activity have increased clay content. Textures range from clay loam to fine sand, with a large amount of coarse fragments. Although the volcanic rock is acidic, it weathers to basic with soils pH ranging from 7.2 to 8.7, and has no acid generating potential. The organic matter content of the soils is very low and variable, and the nutrient status is also low. The soils' physical characteristics and nutrient content are poor as a growth medium for native vegetation. The general lack of soil development and suitable surface horizons are major limitations for soil salvage and potential for use in reclamation.

Our recent revegetation testing for reclamation in the deserts of southern California has shown the salvaged desert soils are not a better growth medium than recontoured overburden piles or spent leach heaps. Surface soil on the project site in alluvial areas and residual accumulations on lower slopes and fans contain seed reserves that can be salvaged and stored as a seedbank. Soil will be collected only as a source of seed.

Vegetation on and around Soledad Mountain is a desert shrub-scrub type adapted to a climate of low, unpredictable precipitation and hot, but variable, temperatures. The dominant vegetation type on the lower alluvial fans and flats is a creosote bush shrub-scrub with widely scattered Joshua trees. The vegetation on the mountain slopes is a mixed shrub/grass type dominated by species adapted to rocky substrates and cooler conditions. Vegetation cover averaged 23% in 1990, and increased to 80% in 1995. Overall, the vegetation is fairly diverse and productive, however the repeated disturbances and burns have locally reduced plant cover, species diversity, and increased annual grasses and weeds. No threatened or endangered species were observed or expected.

General populations of wildlife appear to be low at the Soledad project site, possibly due to the alteration of habitats by historical urbanization, mining, recreational activities and fires. The wildlife species present are typical for desert habitats with small mammals, reptiles, birds and their predators being the dominant components. There are no herbivores such as deer or bighorn sheep on Soledad Mountain. Two animals of possible concern were identified from the threatened and endangered species lists for federal and California agencies: desert tortoise (*Gopherus agassizii*) and the Mohave ground squirrel (*Spermophilus mohavensis*). One species was identified from the California Species of Special Concern: Townsend's big-eared bat (*Corynorhinus townsendii*). Specific surveys conducted for each species failed to detect any of these animals present on the site. No significant impacts to these species is anticipated due to the Soledad Mountain Project.

1.0 INTRODUCTION

The Soledad Mountain Project site is a proposed gold mining operation near Mojave, California. We originally inventoried the soil and biological resources on the site during the winter and spring seasons of 1989/90 during four field trips, and again in spring 1995. Since that earlier comprehensive study, the proposed mining operations have been revised, necessitating that we update the earlier report. The principal revisions in the plan of operations include the elimination of the mill, as well as changes in the locations of the heap leach pads and the overburden piles. The open pit mines on the north and west side of Soledad Mountain have increased in size. The operation will now disturb approximately one thousand acres. The present study area encompasses approximately 3,000 acres as shown in Figure 1-1.

This report presents the results of our inventories as a baseline study. In this report we evaluate the biological resources of Soledad Mountain as information for permits, applications, and to determine impacts and mitigations measures. In addition, this information will be used for future reclamation planning. In our 1989 to 1990 study, we inventoried the site during the growing seasons and provided a comprehensive evaluation of the resources currently on the site. During these earlier winter season 1989/90 studies, this portion of the Mojave Desert in California had low and unevenly distributed rainfall, however most areas on the site received sufficient rainfall to support some plant growth and animal activity. The intervening years have had excellent moisture and the winter/spring of 1995 was cool with abundant moisture. This resulted in excellent growth of shrubs and perennial and annual herbaceous plants.

FIGURE 1-1

STUDY AREA BOUNDARY -
SOILS AND BIOLOGICAL RESOURCES
INVENTORY

SOLEDAD MOUNTAIN PROJECT
Scale 1" = 2000' May 1995

2.0 SITE CHARACTERISTICS

The Soledad Mountain Project is located on Soledad Mountain approximately five miles southwest of the town of Mojave in Kern County, California, and 70 miles northeast of Los Angeles on the western edge of the Mojave Desert. Soledad Mountain is an isolated circular volcanic peak about three miles in diameter, rising out of the alluvial flats in northwestern Antelope Valley near the Tehachapi Mountains. See Figures 2-1 and 2-2 for general views of the mountain. Elevations on the mountain range from 2,800 feet at the base to 4,190 feet at the highest peak. The slopes are steep with rock outcrops and residual weathered rock and soil below the outcrops. Alluvial fans and flats surround the mountain on all sides except for the northeast.

The climate is typical of the Californian deserts with hot, dry summers and cool winters with some moisture. This portion of the western Mojave Desert, just east of Tehachapi Pass, is noted for strong and persistent winds. Temperatures range from 70 to 105 degrees fahrenheit in the summer and 27 to 60 degrees fahrenheit in the winter. Average precipitation is approximately five inches per year with the majority of the rainfall occurring in the winter months from frontal storms. With increasing elevations on Soledad Mountain, the temperatures are cooler, there is some increase in rainfall, and snow is more frequent.

The soil and biological resources are influenced by the desert climate and dry substrate conditions. Soils are generally rocky or pebbly loams on the slopes, and sandy loams on alluvial fans and flats. The vegetation consists of a creosote/burrobush type on the flats and alluvial fans below the mountain. Vegetation on the mountain includes more grass and varied shrubs, and is highly modified by recent and recurrent fires. Wildlife is fairly diverse, however populations are small and activity is seasonal. The mountain is characterized by rock outcrops and rocky soils with predominantly desert shrub-grass species that have been altered by frequent burning and recreation and mine related disturbances.

The human disturbance on the mountain stems from historic mining activities, previous and recent mineral exploration, and past and recent burns. In addition, the area is used for recreational vehicle activities and firearm target practice. The two activities most influencing biological and soil resources are the previous mining and recent exploration, as well as the repeated fires highly altering the vegetation.

Figure 2-1 View from the northwest of Soledad Mountain, May 1990

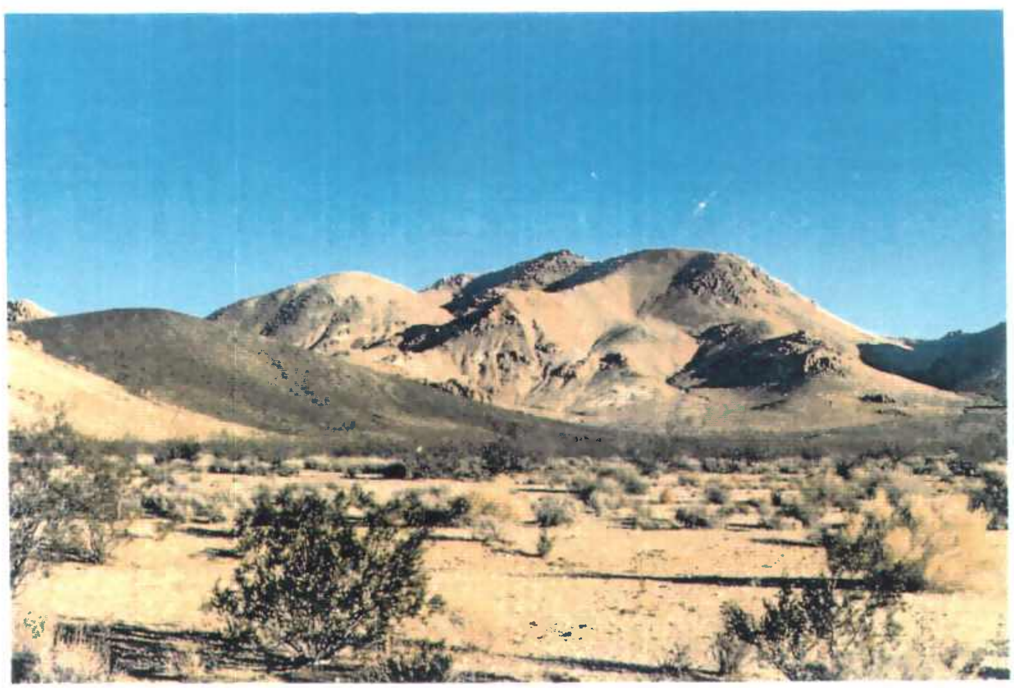

Figure 2-2 View from the northeast of Soledad Mountain, May 1990

3.0 SOILS

We originally inventoried the on-site soils in 1990 to determine the soil types and characteristics and also the suitability and amounts for use as substrate material during reclamation. The soils were again reviewed during the April 1995 field visit for additional information on several soil profiles for depth and suitability for reclamation. With this information, we provide a baseline of the general location of the soil types, and also assess the physical and chemical characteristics for reclamation and revegetation.

The soils on and around Soledad Mountain have been mapped by the US Soil Conservation Service (SCS, 1981.) See Figure 3-1 for a general soil map of the study area. Our activities during the 1990 soil surveys included verification of soil types, checking profile descriptions, collecting soil samples, and determining present soil conditions and resources. We validated this information during the recent field trip in May 1995. Soils and topographic surfaces in this area are relatively stable and do not change significantly over short time periods.

3.1 General Description of Soil Resources

Soledad Mountain formed as a result of volcanic activity and the parent material and soils are, therefore, of volcanic origin. The principal rock substrates consist of three types: 1) two kinds of ryolites (flow and intruded), 2) pyroclastic debris, tuffs and breccias, and 3) quartz alunites and latites. These are acidic volcanic rocks having zones altered by hydrothermal activity. The altered zones may contain clays, quartz, and secondary mineralization. The soils formed from these substrates vary from weathered rock outcrop to deeper droughty soil with a clay loam to sandy loam texture. Soils are skeletal, and soil development has been slow and profile development is incomplete or lacking. The soil surfaces are fairly stable and, in some places, are old and weathered. Soil formation is lacking due to the arid climate. The residual soils on the mountain proper differ from the alluvial soils on the lower fans and flats in that soil textures become increasingly finer out onto the adjacent alluvial flats.

Although the slopes on the mountain are steep, very little evidence exists of slope or soil instability in the form of slides, soil creep, or solifluction lobes. The logic for this is not completely understood at present, but is most likely related to the weathering of the soils producing a clay content that binds soil and rock particles into a stable mass. In this dry climate, the soil does not become saturated enough to move on the bedrock which is rough and without bedding planes.

SOLEDAD MTN. QUADRANGLE
CALIFORNIA–KERN CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 ROSAMOND 15' QUADRANGLE

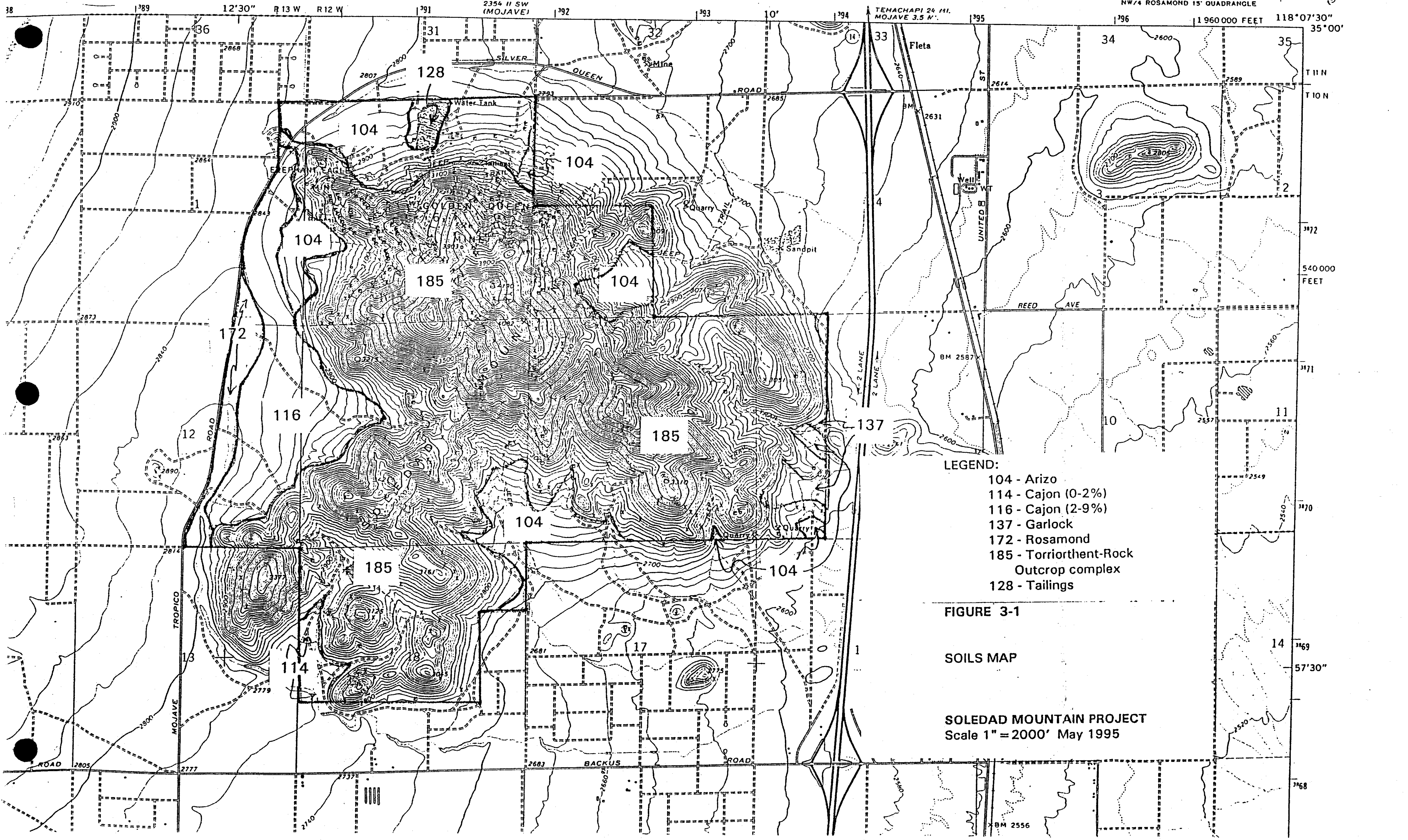

FIGURE 3-1

SOILS MAP

SOLEDAD MOUNTAIN PROJECT
Scale 1" = 2000' May 1995

gravelly sandy loam; cobbly, coarse fragments 40-50%; bedrock at a depth of 12 inches. These soils cannot be stripped for reclamation from the potential mine pits. Salvage is severely limited due to lack of equipment access on steep slopes, and there are inherent limitations of these soils for reclamation.

3.3 Sampling Procedures

We sampled soils in 1990 to identify soil types, general availability, and characteristics of potential soil materials for salvage. We collected 22 soil samples of approximately one half liter each in cloth bags. The samples were collected at two separate depths in ten locations and included samples from old tailings piles. See Table 3-3 for locations. The soils were analyzed in our office and in an analytical laboratory for physical and chemical properties important for plant growth and reclamation. These properties included texture, pH, organic matter and available nutrients.

3.4 Results of Lab Analysis

The lab analysis results are summarized in Tables 3-4 through 3-5. The soils have a wide range of textures depending on the parent material and degree of weathering. Soils derived from rock altered by hydrothermal activity have increased clay content. Textures range from clay loam to loamy sand. Although the volcanic rock is acidic, it weathers to basic with soils pH ranging from 7.2 to 8.7. The one exception is the sample of vuggy clay which is very acidic at a pH of 4.4. The Cation Exchange Capacity (CEC) is medium to high with a high salt content. This is typical and within the range of desert soils. The organic matter content of the soils is very low and variable. This is also typical of desert soils. The nutrient status is mostly low in nitrogen (N), phosphorus (P) and potassium (K). Three samples (GQSS5, GQSS9, GQSS19) had higher NPK values. These samples were located at or near the surface and, therefore, showed a higher organic matter content. One sample from old tailings had an extremely high value for nitrogen, possibly from residual explosives. Lime content was 0% in all sampled soils. Salinity was very low except in one of the tailings samples.

We do not recommend amendments for the alluvial soils based on our revegetation testing using native species. The native plant species are adapted to growing in soils with low organic matter and nutrient status. Fertilization has promoted weed growth which competes with the native species.

Table 3-3 Soil Sample Locations and Classification, Soledad Project

Sample #	Date Collected	Depth (inches)	SCS Soil Classification	Soil Texture	Location Related to Mountain
GQSS1	11/10/89	0 - 3	Arizo	sandy loam	NW side; on alluvial fans
GQSS2	11/10/89	9 - 12	Arizo	sandy loam	NW side; on alluvial fans
GQSS3	11/10/89	0 - 6	Tailing	mine tailings	N side; tailings below mill
GQSS4	11/10/89	0 - 4	Tailing	mine tailings	N side; tailings by entrance rd
GQSS5	11/10/89	0 - 3	Torriorthent	gravelly loam	N side; lower slope
GQSS6	11/10/89	12 - 18	Torriorthent	gravelly-sandy loam	N side, lower slope
GQSS7	11/10/89	12 - 15	Torriorthent	gravelly-clay loam	N side, mid slope
GQSS8	11/10/89	72 - 100	Torriorthent	vuggy clay	N side, mid slope
GQSS9	11/10/89	1 - 3	Torriorthent	loam	N side, mid to upper slope
GQSS10	11/10/89	15 - 18	Torriorthent	loam	N side, mid to upper slope
GQSS11	11/10/89	0 - 3	Rosamond	gravelly-sandy loam	W side; flats (~1000' W of mtn)
GQSS12	11/10/89	9 - 12	Rosamond	sandy loam	W side; flats (~1000' W of mtn)
GQSS13	5/6/90	0 - 3	Cajon	gravelly-loamy sand	W side; on alluvial fans
GQSS14	5/6/90	12 - 15	Cajon	gravelly-loamy sand	W side; on alluvial fans
GQSS15	5/6/90	0 - 3	Garlock	loamy sand	W side; flats (~2000' W of mtn)
GQSS16	5/6/90	12 - 15	Garlock	loamy sand	W side; flats (~2000' W of mtn)
GQSS17	5/9/90	0 - 3	Cajon	loamy sand	SW side; west of Tropico rd.
GQSS18	5/9/90	12 - 15	Cajon	loamy sand	SW side; west of Tropico rd.
GQSS19	5/9/90	1 - 4	Torriorthent	loam	S side; upper slope
GQSS20	5/9/90	18 - 24	Torriorthent	gravelly-clay loam	S side; upper slope
GQSS21	5/10/90	0 - 3	Torriorthent	loamy sand	E side; toe slope
GQSS22	5/10/90	6 - 8	Torriorthent	gravelly-sandy loam	E side; toe slope

Table 3-4	Soil Sample Results, Soledad Mountain Project, November 1989 and May 1990			
Sample #	Soil Texture	pH	Cation Exchange Capacity (Meq/100g)	Organic Material (%)
GQSS1	Sandy Loam	7.6	10.4	1.2
GQSS2	Sandy Loam	7.9	8.8	0.4
GQSS3	Silty Loam	7.5	13.6	0.8
GQSS4	Loam	8.7	11.4	0.2
GQSS5	Loam	7.6	20.6	4.8
GQSS6	Sandy Loam	7.2	9.0	0.5
GQSS7	Clay Loam	7.7	16.6	0.3
GQSS8	Clay Loam	4.4	16.4	0.2
GQSS9	Loam	7.6	15.6	2.3
GQSS10	Loam	7.5	12.0	0.5
GQSS11	Sandy Loam	8.1	9.0	0.5
GQSS12	Sandy Loam	8.2	8.8	0.4
GQSS13	Loamy Sand	7.7	7.0	1.0
GQSS14	Loamy Sand	8.2	6.0	0.5
GQSS15	Loamy Sand	8.0	5.8	0.4
GQSS16	Loamy Sand	8.2	5.6	0.3
GQSS17	Loamy Sand	8.1	6.2	0.6
GQSS18	Loamy Sand	8.3	5.8	0.4
GQSS19	Loam	8.1	15.0	2.0
GQSS20	Clay Loam	8.3	16.6	0.3
GQSS21	Loamy Sand	8.0	7.6	1.3
GQSS22	Loamy Sand	8.0	6.6	0.8

Table 3-5 Available Nutrients in Soil Samples, Soledad Mountain Project, November 1989 and May 1990

Sample Number	Available Nutrients (ppm)						
	NO_3	P	K	Ca	Mg	Zn	Fe
GQSS1	14	19	330	1200	110	3.4	54.5
GQSS2	8	8	172	900	75	0.6	55.0
GQSS3	2332	4	662	3700	51	8.3	57.3
GQSS4	26	8	130	1800	49	8.9	11.0
GQSS5	52	144	360	3000	180	4.6	66.9
GQSS6	26	25	443	800	254	0.4	52.2
GQSS7	7	11	334	1100	256	1.6	63.3
GQSS8	31	4	111	1200	325	1.5	45.6
GQSS9	22	19	450	1700	275	2.6	11.9
GQSS10	8	10	190	1300	462	0.5	63.1
GQSS11	8	13	240	1500	133	0.6	16.2
GQSS12	6	7	115	1500	145	0.4	5.8
GQSS13	9	17	143	600	43	1.0	5.9
GQSS14	8	10	120	600	50	1.1	3.2
GQSS15	6	10	124	800	40	1.0	7.5
GQSS16	4	10	140	1000	104	0.6	12.1
GQSS17	8	14	175	1100	57	0.6	3.6
GQSS18	7	25	99	1900	211	0.8	14.2
GQSS19	24	31	669	1500	296	2.8	8.9
GQSS20	11	18	307	1800	298	0.6	9.8
GQSS21	10	21	323	1500	112	3.1	49.3
GQSS22	13	12	408	1500	268	0.7	31.8

3.5 Soil Suitability and Availability for Reclamation

There are several competing uses for the salvageable soils in the area to be disturbed during mining. These uses are: 1) as a plant growth medium or seed source in reclamation, 2) as plating for erosion control, and 3) as foundation material for construction of planned facilities. For our report, we evaluated soils use as a resource in reclamation and revegetation.

The soils' physical characteristics and nutrient content are poor as a growth medium given that they are salvaged from areas with little soil development. There is little soil material differentiation between horizons. The general lack of soil development and suitable surface horizons, poor soil texture, and large amount of coarse fragments are major limitations for soil salvage and potential for use in reclamation. The upper slopes have some development of soil because of higher moisture content and cooler temperatures, but are limited by equipment access and small extent. If frequent burns did not occur, then the mountain soils would, most likely, be more productive. These soils are residual and, in the past, had a higher vegetation cover and productivity prior to disturbance from mining and other disruptive activities (fire and vandalism.) As discussed in the map unit descriptions, soils developed on slopes and alluvial fans on the study area have physical limitations for salvage. These limitations include steep topography, rock outcrops and boulders on the mountain, and shallow soils with large amounts of coarse fragments in the surface and subsurface soils. Salvage of these soils is not possible given the conditions on the site. The major limitation to soil salvage at the mountain base is the large coarse rock fragment content which varies depending on topographic location and slope, the lack of organic matter except on the surface, and low nutrient status.

The physical and chemical characteristics of the soil itself (such as texture, pH, soluble salts and nutrients) permit growth of native plant species. The soils located at or near the surface had a better nutrient status with higher NPK values and some residual organic matter. The surface soils contain abundant seed, and revegetation tests have shown good germination and growth from seeds in salvaged surface soils.

Our recent revegetation testing for reclamation in the deserts of southern California has shown the salvaged soils are not a better growth medium than recontoured overburden piles or spent leach heaps. These testing results suggest that large scale stripping and stockpiling of soils is not necessary for successful revegetation during reclamation. Soils near the more moderately sloped areas around the base of the mountain potentially could be salvaged at the surface to a depth of about 0.5 feet as a source of seed. This stockpiles soil would act as a seedbank for distribution on surfaces to be reclaimed. For use in reclamation, we do not recommend fertilizer be used since our recent tests of reclamation to native species have been successful with no amendments.

The locations and amounts of soil materials of this 0.5 feet that can be salvaged can be determined once final mining configuration and design details of facilities are determined. The amounts will be calculated during the reclamation planning, and presented in the reclamation plan. The balance of salvaged soil materials can be calculated, and the storage or distribution can be determined and become part of the reclamation planning. Experience has shown that an initial field determination of soil salvage and suitability at the time of construction may be necessary.

4.0 VEGETATION

We surveyed vegetation in the study area for general vegetative types, species present (floristics), and the conditions of the vegetation in 1990 and again in 1995. We sampled the vegetation for the dominant species, general canopy cover by species, densities of perennial species, and diversity. Our sampling in 1995 followed a record period of high moisture resulting in vigorous plant growth and productivity.

4.1 General Observations

The vegetation on and around Soledad Mountain is a desert shrub-scrub type adapted to a climate of low, unpredictable precipitation and hot, but variable, temperatures. The adaptations of the native species to the climate include a quick response to rainfall and extended dormancy periods. The dominant vegetation type on the lower alluvial fans and flats is a creosote bush shrub-scrub with widely scattered Joshua trees. The vegetation on the mountain slopes is a mixed shrub/grass type dominated by species adapted to rocky substrates and cooler conditions. These species are common in desert mountain ranges and have affinities to the Great Basin deserts to the north.

Plant communities on portions of Soledad Mountain are extensively disturbed by previous mining activities and mineral exploration. In addition, nearly all the lower slopes, sides, and top of the mountain have been altered by frequent burns which change and reduce the shrub cover and increase annual grasses and weeds. Lower plant productivity is the result. There are a few areas of undisturbed vegetation on the higher ridges among rock outcrop where burns have not occurred. Sheep have recently grazed in the lower mountain slopes and in the protected valleys and canyons. This grazing was heavy in places in 1990, and had caused a reduction in plant cover.

4.2 Survey Methodology

We surveyed the project site during 1990 for general vegetation types and dominant species using topographic maps and aerial photographs in combination with walking the area for ground truth. We recorded plant species and collected several for identification and verification in a herbarium. We mapped the vegetation types and determined which areas to sample.

We sampled vegetation for species composition and canopy coverage using one of two methods. The first method employed a visual estimate of an area by recording species and assigning a cover value. We used this qualitative method on steep mountain slopes and in small or isolated areas when a long transect was not possible. The second method utilized coupled linear quadrats (50'x10') in a transect. Each plant rooted in the quadrat was recorded as to species and size. We recorded 10 quadrats in a line. This method was used on lower alluvial fans and flats and provided quantitative data on large plant stands. We employed identical methods during 1995 to measure plant cover, density, and diversity.

We made observations on the extent and types of disturbance to the vegetation, as well as the plant species type that had colonized recent and older bare ground. Response of the vegetation to other climatic and edaphic factors were observed and recorded to aid in understanding the relationship of vegetation type and productivity to topography and weather for reclamation planning.

4.3 Results of the Vegetation Surveys

We present the results of the qualitative vegetation surveys here for the vegetation types and distribution (mapping) and dominant species present. The quantitative surveys provided information on plant species present, cover, and shrub density and diversity.

4.3.1 Major Plant Species

The Soledad Mountain project site contains plant species (floristics) typical for the western Mojave Desert in Antelope Valley. The plant species are hardy desert shrubs and sub-shrubs which grow year-round when moisture is available. Fall-germinating, annual species that grow throughout the mild winter and spring seasons are present. Some shrubs (such as joint-fir, spiny hop-sage, and shadscale) grow only at higher altitudes this far south. They are more widely distributed in the Great Basin area to the northeast. We believe this is a result of the cooler temperatures, higher altitude, and the steep slopes at Soledad Mountain compared to the lower regions of the Mojave Desert region. Cactus, trees, and tall shrubs are not present on-site with the exception of the Joshua tree and beaver-tail and golden cholla cactus. There is a lack of well-defined drainages or washes, and the type of vegetation characteristic of these washes. A juniper zone is not present due to the volcanic substrate and the unfavorable dry, warm climate.

The major plant species are listed in Appendix A, Table A-1. We generated this list from observations of plant species on the site, plants collected and identified using floristics manuals (Munz and Keck, l968; and Jepsen, 1993), and additional plant species verified in a herbarium (Weber, 1990 and 1995, University of Colorado Herbarium.) Many of the plant species do not have common or vernacular names, so the plants were given common names based on a translation of the scientific name. The majority of the species were named according the most recent California flora (Jepsen, 1993).

There were no threatened or endangered plant species expected or observed on the project site. There were also no unique or different vegetation or habitat types on the site.

4.3.2 Vegetation Types and Distribution

We mapped the vegetation types according to the two dominant types: shrub scrub and mixed shrub/grass. Zones of vegetation on and below the mountain are naturally divided by topography. Figure 4-1 is a map of the vegetation types. Figures 4-2 to 4-5 are contrasting photographs of the same areas from 1990 and 1995 of the shrub vegetation on the lower alluvial fans around the north side of the mountain. The lower slopes on alluvial fans and flats contain a desert shrub/scrub dominated by the *Larrea tridentata* (creosote bush) and a secondary cover of *Ambrosia dumosa* (burrobush), *Xylorhiza tortifolia* (mojave-aster), *Acamptopappus sphaerocephalus* (goldenhead), and *Ephedra nevadensis* (joint-fir). Plant zonation at the base of the mountain is dominated by *Ambrosia dumosa* (burrobush) and taller growths of *Larrea tridentata* (creosote bush). There is less plant variety at the base of the mountain, most likely due to a less diverse topography and the greater disturbance discussed in Section 2.0.

The vegetation on the mid- and upper-slopes of the mountain consists of a mixed shrub/grass community including *Grayia spinosa* (spiny hopsage), *Krascheninnikovia lanata* (winterfat), *Eriogonum* sp. (buckwheat), and *Atriplex polycarpa* (cattle spinach) common in the Great Basin. Much of the land surface is covered by rock outcrops and rock slides. Some plant species are found more commonly among the rocks than in the soils. Overall, the vegetation is fairly diverse and productive, however the repeated disturbances and burns have reduced the plant cover and species diversity.

During 1995, we again surveyed soils in two areas on the lower mountain alluvial fans where the heap leach area is planned. These deeper alluvial soils consist of partially sorted sands and silts with varying amounts, up to 75%, of coarse rock fragments. These soils were evaluated for stripping and use in reclamation. The following section discusses the soil types and mapping in relation to topography and substrate type.

3.2 Soil Types

The soil types are related to rock types and substrates influenced by the topography on and around Soledad Mountain. The taxonomic classification of the soils on the project site are given in Table 3-1, and are based on the soil survey of southeastern Kern County (SCS 1981). A description of the soil series are given in Table 3-2, and are based on the general descriptions of the SCS, and also on field observations during the present surveys.

Descriptions of profiles and soil development for typical soils in place are given below. The local soil types generally match the descriptions of the SCS soil classification series soil types. The information includes physical factors such as structure, consistency, depths, percentage rock, erosion potential, and permeability.

<u>Arizo</u>

The Arizo soil is generally located on the alluvial toe slopes and fans around the base of the mountain at 2 to 10% slopes. The soil is a sandy loam with 40% gravel and small stones to 50% stones and cobbles with depth (see Figure 3-2.) It has no structure and is loose and friable with good permeability and high wind erosion potential. Portions of the leach heap are planned on these soils. A soil pit dug to 36 inches showed the following: alluvial sloping ($4\text{-}5^{0}$) to the north, no profile development (not even A horizon); sandy clay loam to sandy loam; cobbles increase with depth, 40% cobbles at 30 inches of depth, and 65% coarse materials at greater than 30 inches. Soil salvage is limited by coarse fragments, and soil suitability is low due to poor nutrient status and texture.

Table 3-1	SCS Taxonomic Classification of Soil Series, Soledad Mountain Project
Series Name	Classification
Arizo	Sandy-skeletal, mixed, thermic Typic Torriorthents
Cajon	Mixed, thermic Typic Torripsamments
Garlock	Fine-loamy, mixed, thermic Typic Haplargids
Rosamond	Fine-loamy, mixed, (calcareous), thermic Typic Torrifluvents
Torriorthents	Undifferentiated
Rock Outcrop	Unclassified
Other	
Mined rock	Variable texture, size and weathering
Mill tailings	Fine textured, uniform

Table 3-2	SCS Soil Series Descriptions on Soledad Project
Series Name	Description
Arizo	Deep, sandy loam soils on alluvial toe slopes and fans around the base of the mountain, 2 to 10% slopes.
Cajon	Deep, sandy to loamy sand, 0 to 5% slope, on alluvial fans and plains out from the base of the mountain.
Garlock	Very deep, loamy sand to sandy loam, well drained, gently sloping and gently rolling soil on alluvial fans and terraces, 2 to 9% slopes.
Rosamond	Very deep, sandy loam to clay loam, well drained, nearly level on alluvial plains, 0 to 2% slopes.
Torriorthents	Weathered rock outcrop and shallow to deep residual soils from host rocks on the mountain; mostly skeletal soils with light brown clay to sandy loam texture, 60 to 70% rock and cobbles, irregular boundary to C horizon (bedrock or residual weathered rock)
Rock Outcrop	Occurs on all aspects on the mountain as crags, cliffs and along ridges and peaks
Mined rock	Piles of various sizes and materials from mining
Mill tailings	Rhyolite tailings and mined rock; some has been sold as construction material

Cajon

The Cajon soils are located to the west and south on alluvial fans and plains out from the base of the mountain. Slopes are from 2 to 15%. The soil consists of a loose friable, gravelly loam to loamy sand, with numerous surface fine roots. The soil color is light brown to brown. Gravel content is 15% and reduces with depth. Permeability is rapid and wind erosion potential is very high. Portions of the western heap leach site may be developed on these soils. A soil pit showed the following: alluvial fan with slopes to 15%; no profile development; gravelly loamy sand to loamy sand, friable; coarse fragments, cobbles to 15 inches at 60%, no structure, no development, erodible by wind; severe limitations for salvage due to coarse fragments on portions of the alluvial fan.

Garlock

The Garlock soils are very deep, loamy sand located on the alluvial flat lands surrounding Soledad Mountain to the north and northwest. A lag gravel surface can exist on these loose, friable, brown soils. The 0 to 1% sloped soils have a 5% gravel content near surface, and a dense, slightly blocky structure and increased clay content with depth. Permeability is moderately slow. Water erosion hazard is slight or moderate. Wind erosion potential is high. Soils in this unit will not be disturbed by the present mining. Limitations for reclamation use are an increased clay and mineral content out onto the flats and the low nutrient status.

Rosamond

The Rosamond soils are located on the flats to the west of the mountain. The sandy loam to gravelly sandy loam soil has 10% gravel and stones, is slightly blocky, reddish to light brown, and contains very low to no organics. These alluvial soils are on 0 to 2% slopes, permeability is moderately slow, and erosion potential is high. Soil in this unit will not be disturbed during present mining, with limitations on use due to erodability and high gravel and lime content.

Torriorthents

Although not of any one soil classification series, the torriorthents consist of weathered rock outcrop and shallow to deep, residual soils from host rocks on the mountain. The soils range from a clay loam to a cobbly, loamy sand with up to 60 to 70% rock and cobbles on slopes of 50 to 75% (see Figure 3-3.) Permeability ranges from moderately slow to moderately rapid with a moderate erosion potential. A 1995 soil pit on slopes at 8-10% showed the following: alluvial soil washed in from upslope; no profile development;

Figure 3-2 Surface of an Arizo Soil on the northwest slope of Soledad Mountain, May 1990 (note rock and gravel)

Figure 3-3 Torriorthents soil on the slopes of Soledad Mountain, May 1995 (note large rock fragments)


7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 ROSAMOND 15' QUADRANGLE
PROJECT BOUNDARY
LEGEND
1 SHRUB SCRUB
2 MIXED UPLAND SHRUB / GRASS
4.1-1 1990 VEGETATION SURVEY PLOTS (Table 4-1)
4.2-1 1990 VEGETATION SURVEY TRANSITS (TABLE 4-2)
4.3-1 1995 VEGETATION SURVEY PLOTS (TABLE 4-3)
4.4-1 1995 VEGETATION SURVEY TRANSITS (TABLE 4-4)
SOLEDAD MOUNTAIN PROJECT
VEGETATION MAP
SCALE 1"=2000' MAY 1995, REVISED DECEMBER 1996
FIGURE 4-1 REVISED MARCH 1997

Figure 4-2 Creosote vegetation on alluvial fan on the lower western slopes of Soledad Mountain, May 1990 (contrast with photo in Figure 4-3)

Figure 4-3 Creosote vegetation on the lower western slopes of Soledad Mountain, May 1995 (note excellent growth of vegetation)

Figure 4-4 Vegetation on the northern slopes of Soledad Mountain, April, 1990

Figure 4-5 Vegetation on north slope of Soledad Mountain, May 1995 (note gray shed, and compare with photo in Figure 4-4)

4.3.3 Vegetation Cover, Density and Diversity

The results of our stand survey for composition and cover completed in 1990 are given in Table 4-1 for the estimation plots in the mixed shrub/grass community, and Table 4-2 for the linear transects in the creosote bush shrub-scrub. Common names of plant species are given in Table A-2 in the Appendix A. Vegetative cover was sparse with small shrubs, a few clumps of grasses and scatterings of forbs during the winter season in 1990. Cover in 1995 was greater due to increased moisture and improved growing conditions (see Table 4-3 through 4-5 for comparisons.) In 1990, the total canopy cover of the shrub-scrub on the alluvial fans and flats ranged from 20 to 26% and averaged 23% for the 4 linear transects. Individual plots within the surveyed plots varied from 9 to 35%. The vegetation is fairly uniform with a dominant cover of *Larrea tridentata* (creosote bush), and a secondary cover of *Ambrosia dumosa* (burrobush) and *Acamptopappus sphaerocephalus* (goldenhead). Few other species have more than 1 to 3% percent cover except for *Xylorhiza tortifolia* (mojave aster) in a few plots.

We compare the results of the two transects surveyed in 1995 in Tables 4-4 and 4-5. The primary difference is the large increase in plant cover from averaging 23% in 1990 to approximately 80% in 1995. The annual grasses and forbs had the greatest increase in percent ground cover and the shrubs were also larger due to the recent rains.

In 1990, the mixed shrub community on the mountain slopes consisted mainly of annual grasses with a cover value of 10% due to fire. In areas protected from fire, the shrubs *Atriplex confertifolia* (cattle spinach) and *Tetradymia axillaris* (horsebrush) dominated with a cover value of 49%. In 1995 in the same area, we estimated total cover values at approximately 80%. The vegetation is extremely variable. Additional dominant species include *Grayia spinosa* (spiny hopsage), *Ephedra nevadensis* (joint fir), several species of perennial *Eriogonum* (buckwheats), and grasses such as *Achnatherum* sp. (needlegrass), *Poa secunda* (bluegrass), and *Elymus elymoides* (squirreltail). The extreme differences in cover between 1990 and 1995 demonstrates the highly variable nature of the vegetation depending on exposure, weather, and soil moisture conditions (see Tables 4-1 and 4-3.)

In 1995, we conducted plant surveys using linear transects on the potential heap leach areas. These areas are located on the northern and western alluvial lower slopes of the mountain. Results of these surveys are presented in Tables 4-4 and 4-5. Our results indicate that this was an excellent year for plant growth (averaging about 80% cover). Shrub densities in 1995 averaged 3700 and 4300 plants per hectare (1480 to 1720 per acre.) Perennial densities were not determined in 1990, however we assume that the densities were lower due to the prolonged drought. Perennial densities of vegetation change slowly. Plant species diversity (average number of species per plot) in 1995 were fairly uniform at 13.6 and 14.0 plant species recorded per 20 square meter plot with a range from 11 to 17. These values for density and diversity are average for desert vegetation and do not indicate unusual conditions.

Table 4-1 Upland Perennial Plant Species and Percent Ground Cover in Non-dimensional Vegetation Surveys, Soledad Mountain Project, 1990

Plant Species	Plot Number										
	1	2	3	4	5	6	7	8	9	10	11
Shrubs											
Atriplex polycarpa						30	+	10			
Chrysothamnus nauseosus					+	2					
Ephedra nevadensis			8	2	2	6	4	4	2	4	2
Ericameria cooperi				+	+	10					
Ericameria laricifolia					+	1		3			
Eriogonum fasciculatum	4	2	5		½		3		6	6	
Grayia spinosa	+	+		3		2	8	15	3	15	2
Gutierrezia sarothrae	+				1	2	1		1		
Krascheninnikovia lanata			1				1				
Larrea tridentata					2						
Lycium andersonii					+		3				1
Lycium cooperi		+	1								
Tetradymia axillaris			+								
Tetradymia glabrata					1	8					
Grasses											
Achnatherum speciosum	10	3	4								
misc. perennial grasses				6			4	5	2	4	3
annual grasses	4	2	10				+	3	1	+	2
Herbs											
Amsinckia tessellata					+						

Table 4-1 Upland Perennial Plant Species and Percent Ground Cover in Non-dimensional Vegetation Surveys, Soledad Mountain Project, 1990											
Plant Species	Plot Number										
	1	2	3	4	5	6	7	8	9	10	11
Eriogonum baileyi					+		+				
Eriophyllum wallacei					+						
Erodium circutarium					+						
Mirabilis multiflora	½						+		+		
Phacelia glandulifera					+						
Stephanomeria spinosa	1	1	2		+		+	1		+	
annual herbs	3	1	3		4		+	+	+	+	+
total vegetation	25	10	36	17	11	49	27	41	19	34	32
rock	60	85					45	50	60	50	65
bare	20						28	9	9	29	3

Table 4-2 Percent Cover of Perennial Vegetation In Linear Plots, Soledad Mountain Project, November 1989 and May 1990

Plant Species	Percent Cover of Perennial Vegetation by Plot									
	1	2	3	4	5	6	7	8	9	10
SURVEY 1										
Larrea tridentata	14	11	22	1	18	12	10	15	28	2
Ambrosia dumosa	4	3	1	4	2	3	3	1	0.2	0.3
Xylorhiza tortifolia	1	0.4	1	1	1	1	1	0.3	0.3	0.4
Achnatherum speciosum	0.2	0.4	0.04	1	0.04	0	0.2	0	0	0
Grayia spinosa	0	1	2	0	0	0	1	1	0.2	2
Ephedra nevadensis	0	0	1	5	0	0	0	0	0	0
Chrysothamnus nauseosus	0	0	0	1	1	0	0	0	0	0
Krascheninnikovia lanata	0	0	0	0	0	1	0	0	0	0
Yucca brevifolia	0	0	0	0	0	0	0	0	0	0
Average	20	15	26	14	22	17	17	18	39	4
SURVEY 2										
Larrea tridentata	0	22	0	9	19	8	11	1	17	21
Ambrosia dumosa	0	0	0.2	0	0.2	0.04	1	0.2	0.3	0.2
Achnatherum speciosum	0	0	0	0	0.04	0.2	0	0.2	0.04	0
Grayia spinosa	0	0	0	0	0.3	0.2	0.3	1	0	0
Ephedra nevadensis	0	0	0	2	0	3	0	0	0	0
Krascheninnikovia lanata	0	0	0	0.4	0	0	0	0	0	0
Acamptopappus sphaerocephalus	5	3	3	5	2	4	4	3	2	2
Eriogonum fasciculatum	0.2	0	0	0	1	2	0.3	1	0	0.04
Tetradymia axillaris	1	0	0	0	0	0	0	0	0	0
Lycium cooperi	0	1	0	0	0	0	0	0	0	0
Lycium andersonii	0	0	0	0	0	0.2	0.4	0	0	0
Average	7	26	3	16	3	17	18	7	20	23
SURVEY 3										
Larrea tridentata	14	18	0	4	17	0	9	4	36	16
Ambrosia dumosa	4	2	8	0	2	2	1	4	2	6
Xylorhiza tortifolia	1	1	1	4	3	4	3	4	2	4

Table 4-2 Percent Cover of Perennial Vegetation In Linear Plots, Soledad Mountain Project, November 1989 and May 1990										
Plant Species	Percent Cover of Perennial Vegetation by Plot									
	1	2	3	4	5	6	7	8	9	10
Achnatherum speciosum	0.3	0.08	0	1	0.3	1	0.04	0.04	0	0.04
Grayia spinosa	0	0.4	0	0	0	0	0	0	0	0
Ephedra nevadensis	0	0	0	0	0	0	0	0	3	0
Krascheninnikovia lanata	0.2	0	0	0	0	0.04	0	0.04	0	0
Yucca brevifolia	0	0	0	0	0	4	0	0	0	0
Achnatherum hymenoides	0	0	0.2	0	0	0	0	0	0	0
Opuntia echinocarpa	0	0	0	0	0	0	0.2	0	0	0
Average	20	22	9	10	23	11	14	13	42	26
SURVEY 4										
Larrea tridentata	11	17	7	5	20	12	10	3	4	15
Ambrosia dumosa	0	0.2	1	6	0.04	2	0	2	0	0
Xylorhiza tortifolia	0	0.2	1	0.2	1	1	0.2	3	10	1
Achnatherum speciosum	0	0	0.3	0.04	0.2	0.4	0.1	1	2	1
Ephedra nevadensis	13	1	3	1	1	3	5	2	5	5
Krascheninnikovia lanata	0	0	0	0.2	0	0	0	0	2	0
Yucca brevifolia	0	0	0	0	0	0	0	0	0	6
Eriogonum fasciculatum	0	0	0	1	0	0	0.4	2	0	0
Eriogonum heermannii	0	0	0	0	0	0	0.04	0	1	0
Achnatherum hymenoides	0.2	0	0	0	0	0	0	0.2	0	1
Gutierrezia microcephala	3	0	0.4	0.3	2	2	6	0	2	2
Average	28	18	13	14	25	20	22	12	26	32

Table 4-3 Qualitative Plots Results, Soledad Mountain Project, June 1995				
	Veg.	Litter	Rock	Bare
(1) LOWER SLOPES - Low Fans and Drainages				
burned & previously mined, partially naturally reclaimed, W of old facilities				
spotty shrubs: *Larrea tridentata*, *Atriplex polycarpa*, *Tetradymia axil*, *Ericameria linearifolia*; upto 20% perennial grasses	80%	10%	5%	5%
(2) LOWER SLOPES - Burned Areas				
Bromus rupens, *Ericameria linearifolia*, *Atriplex polycarpa*, *Stipa* sp., perennial grasses, annual forbs	82%	3%	10%	5%
(3) LOWER SLOPES - Steep Areas				
Bromus rupens, *Tetradymia axil*, *Ericameria linearifolia*, perennial grasses, annual forbs	87%	5%	5%	3%
(4) MID SLOPES				
not burned recently on a W facing slope near glory holes				
Eriogonum fasciculatum, *Bromus rupens*, *Grayia spinosa*, *Poa* sp., *Atriplex polycarpa*, *Ephedra nevadensis*, *Sitanion* sp., annual forbs	80%	3%	15%	2%
(5) MID-UPPER SLOPES				
burned & grazed on the E side of mountain				
Bromus rupens, *Eriogonum fasciculatum*, *Atriplex polycarpa*, *Ephedra nevadensis*, *Gutierrezia sarothrae*, *Poa* sp., annual forb	75%	5%	15%	5%
(6) UPPER SLOPES				
some burned stumps on N facing slope below peak near rock talus				
dominated by *Ephedra nevadensis; Eriogonum fasciculatum*, *Eriogonum plumatella*, *Sitanion* sp., *Bromus rupens*, *Poa* sp., *Stephanomeria spinosa* (on scree), annual forbs	80%	5%	10%	5%
(7) ROCK OUTCROPS				
W facing mid slope				
Poa sp., *Stipa* sp., *Ericameria laricifolia.*	30%	5%	65%	0%

Table 4-4 Plant Cover Percentages for Proposed Heap Leach Sites, Soledad Mountain, May 1995				
Plot No.	Vegetation	Litter	Rock	Bareground
Proposed West Side Heap Leach Area				
1-1	75	5	10	10
1-2	86	5	4	5
1-3	75	10	10	5
1-4	80	5	10	5
1-5	75	10	5	10
1-6	83	10	3	4
1-7	75	15	5	5
1-8	78	10	8	4
1-9	77	5	10	8
1-10	75	10	5	10
Average	78	8	7	7
Proposed North Side Heap Leach Area				
2-1	75	5	10	10
2-2	75	10	10	5
2-3	75	10	10	5
2-4	82	10	5	3
2-5	75	15	5	5
2-6	88	7	3	2
2-7	86	10	2	2
2-8	82	10	5	3
2-9	84	5	8	3
2-10	80	5	10	5
Average	80	9	7	4

Table 4-5 Vegetative Parameters for Transects on the Proposed Heap Leach Sites, Soledad Mountain, May 1995

Plot No.	Cover (%)			Species diversity	Shrub density	
	shrub	perennial grass	annual		#/hectare	#/acre
Proposed West Side Heap Leach Area						
1-1	35	6	45	14	2500	1000
1-2	37	6	40	17	4500	1800
1-3	41	6	40	13	7000	2800
1-4	27	1	60	12	1000	400
1-5	19	+	70	11	2500	1000
1-6	34	3	50	13	3000	1200
1-7	24	6	55	15	6000	2400
1-8	28	5	55	12	4500	1800
1-9	47	4	35	14	6000	2400
1-10	29	1	55	15	6000	2400
Average	32.1	3.8	50.5	13.6	4300	1720
Proposed North Side Heap Leach Area						
2-1	30	+	55	15	3000	1200
2-2	15	1	70	14	1500	600
2-3	22	0	65	13	4500	1800
2-4	28	+	60	12	4000	1600
2-5	20	0	65	15	2000	800
2-6	33	2	50	15	5000	2000
2-7	30	1	55	14	3500	1400
2-8	25	6	55	14	4500	1800
2-9	26	4	55	15	5000	2000
2-10	28	4	55	13	4000	1600
Average	25.7	2.25	58.5	14	3700	1480

5.0 WILDLIFE RESOURCES

Wildlife species present on the Soledad project site are typical of desert habitats, with small mammals, reptiles, and birds being the dominant components. General populations of wildlife appear to be low due to fires, and historic and recent disturbances to native habitats by mining, recreational activities, and urbanization. This area of the western Mojave Desert in Antelope Valley is being developed by mining, farming, and housing. The effect on animal populations has been fragmented and reduced habitat availability, including the total displacement of large herbivores. There were no deer or bighorn sheep observed on Soledad Mountain.

5.1 Survey Methodology

Wildlife surveys consisted of a general reconnaissance followed by specific walking and driving transects for target species or groups of animals. In general, all observations and sighting of animals or sign were recorded while on site. The small mammal species were sampled in conjunction with the Mohave ground squirrel trapping. Surveys were conducted in August and November 1989, March and May l990, and to a limited extent in May 1995. Surveys were conducted at dawn and dusk for small mammals and birds, including raptors. Specific surveys were conducted for raptors and their nesting sites. The underground workings at the site were extensively examined for seasonal bat use and for other general wildlife. Dr. Patricia Brown, a specialist in bat studies, led this aspect of the study. Her results are presented in Appendix B. Dr. Brown was assisted by Dr. Scott Altenbach in a winter survey of mine workings in 1997.

One federal-listed threatened species, the desert tortoise (*Gopherus agassizii*), and a California-listed threatened species, the Mohave ground squirrel (*Spermophilus mohavensis*), were surveyed using special techniques. Desert tortoise presence was determined by walking a standard 1.5 mile triangular transects in 1990. Shorter linear transects were also walked in smaller areas in early morning or late afternoon. Surveys for desert tortoise were repeated in 1995 in the same locations.

Dr. Patricia Brown directed the surveys for Mohave ground squirrel using grids of live traps in two locations. The sampling protocol followed the revised (February 1990) survey guidelines of the California Department of Fish and Game (CDFG); see Appendix C.

Two bat species listed as California Species of Special Concern, Townsend's big-eared bat (*Corynorhinus townsendii*) and the pallid bat (*Antrozous pallidus*), were specifically surveyed by Dr. Brown during two separate periods from Spring 1990 to January 1997. The first two bat surveys, focusing on Townsend's big-eared bat, were conducted in mine openings, stopes, and glory holes, on Soledad Mountain during late March and June 1990.[1] During the surveys, 55 openings were entered and visually inspected for bats,

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1 Brown, Patricia, Ph.D., A Survey *for Bats of the Soledad Mountain Project, Mojave, Kern County, California*, July 2, 1990.

guano, or other animal signs. A second series of bat surveys were conducted in summer, 1996 and winter, 1997. The August and October, 1996[2] bat surveys included over 70 workings searched for bats and guano deposits. During the January, 1997[3] survey, over 30 mine workings were searched by Dr. Brown and Dr. Scott Altenbach used a hoist to survey mine shafts.

5.2 Wildlife Species Present

During the August and November 1989 wildlife surveys, little evidence of animal presence or activity was observed. This most likely resulted from the time of year surveys were conducted and the overlapping 18-month drought. Animal populations are also affected, in general, by the high Santa Anna winds characteristic of this region. Most wildlife were hibernating or aestivating in late summer and fall, and few animals were observed. Populations may also have been reduced by mortality and/or depressed reproduction.

The March and May, 1990 and May, 1995 surveys were conducted during a period of greater wildlife activity resulting from recent rains and the late and unseasonably cool spring of 1995. No hoofed animals or large herbivores were present, however the area did reflect relatively recent grazing by domestic sheep in 1990, but not in 1995. Much of this grazing has been illegal on open desert, and was severe in local areas on Soledad Mountain.

Desert reptiles, rodents, and lagomorphs occur on the study area as well as coyote (*Canis latrans)* and other small predators and raptors that prey on these species. Several game birds, including chukar (*Alectoris graeca*), quail (*Lophortyx californicus*), and mourning dove (*Zenaida macroura*) are also present. The major animal species observed or expected on the study area are listed in Table A-2, Appendix A. This list is relatively complete, based on the wildlife surveys conducted, and known distributions of animal species.

<u>Mammals</u>

Mammal presence on the site was determined either by observation of the animal itself or by other signs such as burrow, scat, tracks, or skeletal remains. Some of the animal species listed are known to be present based on literature or other records, although sign of these species may not have been observed on the site.

Predators: Predators inhabiting the site are wide ranging, common mammals that prey on reptiles, birds, and other small mammals. These include coyote, bobcat (*Lynx rufus*),

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[2] Brown, Patricia, Ph.D., Brown-Berry Biological Consulting, *Warm Season Bat Surveys at Soledad Mountain, Kern County, California*, October 28, 1996.

[3] Brown, Patricia, Ph.D., *Winter Bat Survey at Soledad Mountain, Kern County, California*, February 3, 1997.

ringtail (*Bassariscus astutus*), gray fox (*Urocyon cinereoargenteus*), desert kit fox (*Vulpes macrotis*), [not the San Joaquin kit fox (*Vulpes macrotis mutica*), a federal endangered subspecies], and possibly badger (*Taxidea taxus*). Predators use the site as part of their large home range and hunting territory. Some of these predators may den on the mountain during the breeding season.

Small mammals: Small mammals on the site are typical of those with affinities to desert scrub and rock-slopes, the two dominant habitats on the mountain. Common mammals include antelope ground squirrel (*Ammospermophilus leucurus*), black-tailed jackrabbit (*Lepus californicus*), cottontail (*Sylvilagus audubonii*), kangaroo rat (*Dipodomys merriami*), desert woodrat (*Neotoma lepida*), and several species of small rodents (see Table A-2). Antelope ground squirrels were abundant and were captured on both grids during the two trapping periods.

There were no large grazing mammals, such as deer, mountain sheep, or feral burros, observed, nor any sign of recent activity. All three of these species have inhabited the site and while habitats have been degraded, some occasional use may still occur.

Birds

Birds observed and common to the site include the raven (*Corvus corax*), rock dove (*Columba livia*), violet green swallow (*Tachycineta thalassina*), and Brewer's sparrow (*Spizella breweri*). Raptors observed included the golden eagle (*Aquila chrysaetos*), turkey vulture (*Cathartes aura*), and red-tailed hawk (*Buteo jamaicensis*). Peregrine falcons (*Falco peregrinus)* were reported by Dr. Pat Brown and are discussed further in Section 5.4, below. An active golden eagle nest containing two nestlings was observed on the southeast side of Soledad Mountain, outside the study area, in 1990. There was no activity, and no sign of recent use, at this nest during May 1995. Golden eagles may alternate between three to four nesting sites between years. Raptor perches were observed on high points on the project site. No waterfowl were observed on the study area in this dry portion of the desert that lacks any surface or flowing water. Waterfowl, however, are attracted to any open body of water in the desert.

Reptiles

Several species of reptiles are common in the study area. The most common were the side-blotched lizard (*Uta stansburiana*) and desert iguana (*Dipsosaurus dorsalis*). The potential for the presence of the desert tortoise (*Gopherus agassizii*) is discussed in detail in Section 5.4.

Bats

Little evidence of bats was found in the openings or mine workings. One western pipistrelle (*Pipistrellus hesperus*) was trapped in a mist net over a nearby water tank, and other pipistrelles and pallid bats were observed flying in the evening. High winds and low numbers of flying insects may have accounted for the low numbers of bats, and possible low populations. No bats were observed in the mines, and only small amounts of guano were observed in two prospects holes and a stoped adit. A few bats were observed entering or leaving mine workings. Based on these surveys, at least two unidentified species of bats were observed in the project area. Small bats flying around and exiting the mines were probably California myotis (*Myotis californicus*) and/or western pipistrelle. Two species of bats were observed entering or leaving a large open cut, one was a light-colored, broad-winged bat, and the others were 14 large, light-colored bats. Visual characteristics and lack of echolocation were consistent with either Townsend's big-eared bat or pallid bat.

During the winter survey (conducted in January 1997 and included in Appendix B), no bats were observed hibernating in the mine workings, and only a few pieces of fresh guano were detected in one mine adit. Dr. Brown observed that the large number of interconnected, inaccessible workings could not be adequately surveyed, and therefore more bats may be resident than observed. Dr. Altenbach, in a report to Dr. Brown as part of the winter survey (included in Appendix B), saw no sign of bats or guano in the extensive drifts, stopes, and shafts he surveyed. He concluded that although there was an absence of evidence, this does not preclude the presence of bats. He does state, however, that if there were significant numbers of bats, he would have observed signs, and that the absence of bats was unprecedented in such large underground workings. The few bats present would present a difficult or impossible task to exclude prior to mine development. The number of bats possibly killed by mining activities would be low based on the indications of the surveys.

Bat use of the mine workings may be characterized as seasonal use by a low number of individuals representing moderate species diversity. Two species possibly present, Townsend's big-eared bat and pallid bat, are California Species of Special Concern. However, the mine workings do not appear to support any maternity roosts nor large hibernacula.

5.3 Habitats Present

The Soledad site supports three natural wildlife habitats and one resulting from human disturbance. All of these habitat type are shrub/grass communities with a ground layer of annual forbs and grasses in the spring. Habitat diversity is low on the project area and resource productivity is unpredictable because of harsh desert conditions. Shrubs and other plants in these habitat types are widely spaced with low and variable productivity. Animals using these habitats for shelter, food, and reproduction are generally highly adapted to the xeric desert environment.

These habitats, and their common wildlife associates, are as follows.

Mountain rock outcrops, rock slides

These habitats occur on peaks and ridges on the mountain proper throughout the study area. These rocky areas have scattered shrubs and grass species which grow in crevices and intermingled soil pockets. Plants at times have luxuriant growth due to water collection, and the absence of fires. These areas are used for denning and foraging of small mammals and as perches for birds including raptors. Common wildlife species are:

predators: coyotes, bobcats, ringtails
reptiles: lizards, snakes
small mammals: jackrabbit, woodrat and other rodents
birds: game birds, passerine, ravens, raptors, raptor's nests and perches

Scrub/grass on steep mountain slopes

These steep slopes have shallow soils over rocky substrates. The vegetation is a shrub/grass with dominant species of creosote bush, saltbush, joint-fir, and spiny hopsage. Grasses grow as single clumps or under and through the shrubs. These habitats have been highly modified by repeated fires and past grazing, and on large areas are mainly annual grasses dominated by bromes and forbs. Vegetative cover varies from 20 to 80 depending on seasonal rains and time since last fire. Wildlife species are the same as above, except raptors' nests and perches are not present. These slopes are used for foraging and denning of small mammals, which are hunted by raptors.

Creosote bush scrub on fans and alluvial flats

This is the common habitat on the lower slopes and fans (bajadas) around the base of the mountain. This is a creosote bush shrub vegetation with widely spaced joshua trees on the upper bajadas. Perennial grasses grow between and underneath the shrubs, and annual grasses form a ground cover. Wildlife species are:

predators: raptors, coyotes, foxes
reptiles: lizards, snakes
small mammals: jackrabbit, ground squirrels, rodents
birds: wrens and other passerine, ravens, overflights of raptors

Human altered areas and habitats

The mining and other human activities have increased habitat diversity by creating underground openings and abandoned buildings. Surface mining facilities, roads, and grading have reduced vegetation productivity, but increased use by different wildlife species. Evidence of animal use in underground workings included desert woodrat, deer mouse, ringtail, and bobcat. Domestic pigeons and barn owls were observed roosting in mine workings with vertical cuts to the surface. A dead golden eagle and mummified desert tortoise were observed at the bottom of a shaft in the Eagle Adit. These remains had obviously been there for many years. Underground working proved important structural habitat for bats such as roosts and hibernicula. Without these workings, some of the bats species might not occur on or use the site.

The following are human created habitats with associated wildlife:

> mine workings entrances of shafts/adits/glory holes (cliff type): pigeons, owls and raptors, greater abundance of woodrat
> buildings (very few standing): lizards, bats, barn owls
> mine adits and tunnels: pigeons, woodrat, ringtail cat (a few bats observed)

5.4 Threatened, Endangered and Species of Special Concern

Three threatened or endangered species are potentially present in the study area. These are the federal and state listed endangered peregrine falcon, the federal and state listed threatened desert tortoise, and the Mohave ground squirrel, a California listed threatened species. A peregrine falcon was observed crossing a road to the north of the project area, and may hunt the abundant pigeons on the proposed mine site. Specific surveys conducted for the latter two species failed to observe animals or sign present on the site.

Several species of special concern (formerly federal or state C2 candidate species) occur, or potentially occur, on the study area. Of specific concern are the Townsend's big-eared bat and the pallid bat. Other wildlife species of special concern are listed in Table A-1. These species include the golden eagle, burrowing owl, loggerhead shrike, chuckwalla, ringtail, and American badger.

Threatened and Endangered Species:

Peregrine falcon (*Falco peregrinus*)

The peregrine falcon is currently listed by both the state and federal governments as endangered. A peregrine falcon was observed in the spring of 1990 by Dr. Brown flying across a road that borders the northern boundary of the study area. This species, along with other raptors, probably uses the site as a portion of large hunting territories. Peregrine falcons were not observed on the project site during extensive wildlife surveys. There are no peregrine eyrie on-site or in surrounding areas such that the project area would be included within critical habitat for this species. Preferred habitat for nesting and foraging is cliff faces, usually near streams or bodies of water. The proposed project site is not considered good foraging habitat due to distances to suitable habitat types for nesting and wetland habitats. However, peregrines will frequently travel at least 10 miles from their eyrie to procure prey. Pigeons on the study area may represent a prey that could be part of a hunting base for a local pair.

Desert Tortoise (*Gopherus agassizii*)

No live tortoises or recent active sign of any type were observed. Desert tortoise surveys were conducted in areas with suitable habitat during both survey periods. In a total of seven triangular surveys conducted in 1990, there were five possible tortoise signs as inactive burrows underneath creosote bush. The burrows were old, collapsed, and could have been made by other burrowing animals. No other types of tortoise sign were observed. Three similar surveys for tortoises in May 1995 did not reveal any tortoise sign either as burrows, scat, or other signs of activity. If tortoises had been present during this year of high plant growth, then their presence would have been detected. One mummified tortoise was found at the bottom of a mine shaft by Dr. Pat Brown in 1990 during her bat surveys, indicating an earlier presence of tortoises in this area.

This area in Antelope Valley may have supported tortoise in the past, however recent surveys have not detected tortoises west of Highway 14, according to the US Fish and Wildlife Service. The area around Soledad Mountain is not designated desert tortoise habitat, and the nearest designated preserve, the Desert Tortoise Natural Area, is north of California City approximately 20 miles to the northeast of the project site.

Mohave ground Squirrel (*Citellus mohavensis*)

No Mohave ground squirrels were captured or observed during the surveys. The Soledad Mountain site is on the edge of the Mohave ground squirrel's known historical range. The trapping grids were conducted using the 1990 revised Mohave Ground Squirrel Guidelines of the CDFG. Two 100-trap grids were laid out for two trapping periods (March and May 1990) in the vegetation and habitat type most likely to support this species. See Appendix C for details on the location and trapping procedures.

The surveys were conducted during drought conditions which may have influenced the results. However, additional visual surveys have not detected this species near the study area.

Other Special Status Wildlife Species

Several species of wildlife recorded as present or potentially present are designated by the BLM as Sensitive Species, USFWS Special Status Species, or as California Species of Special Concern. These species are discussed below with respect to their presence on the mine site.

Bats:

Townsend's big-eared bat(*Corynorhinus townsendii*)

Townsend's big-eared bat was given special attention as a California Species of Special Concern that has the potential to move into man-made structures such as mines and caves. Surveys for sensitive bat species were conducted on two separate occasions by Dr. Brown in the underground stopes and glory holes in Soledad Mountain. Based on distribution and habitat preference this area could potentially support this species. A tentative identification of Townsend's big-eared bats was made by Dr. Patricia Brown during out-flight surveys of underground mine workings in the summer/fall of 1996. However, positive identification of Townsend's big-eared bat on-site was not possible. If this species is present, seasonal use is limited to low numbers of individuals. There are no large maternity roosts or hibernacula associated with the Soledad underground workings.

Pallid bat (*Antrozous pallidus*)

The pallid bat was also tentatively identified during the same out-flight monitoring of underground workings by Dr. Brown. The species observed were either pallid and/or Townsend's big-eared bats. The bats were not echolocating which is consistent with identification of the species. Positive identification was not possible, since it was impossible to capture specimens exiting from large underground workings with multiple openings. As with the Townsend's big-eared bat, if the pallid bat is present on the mine site, seasonal use is limited to low numbers of individuals. There are no pallid bat maternity roosts or hibernacula associated with the Soledad underground workings.

Raptors:

Golden eagle (*Aquila chrysaetos*)

A pair of golden eagles nested and fledged two birds in spring of 1990 in a nest approximately one mile south of the proposed mine pit. This nesting site was not used in spring 1995. Golden eagles were observed soaring and hunting on Soledad Mountain and the adjacent Tehachapi Range to the northwest during surveys in 1989/90. Golden eagle, and their nests, are protected by the Bald Eagle Protection Act, but are not a threatened or endangered species. Mine construction and operation are expected to reduce the prey base of all large raptors in the area.

Burrowing owl (*Speotyto cunicularia*)

Burrowing owls are a California Species of Special Concern. The owls were neither seen, nor expected, in the study area. These birds are common in the agricultural areas of Antelope Valley, and utilize abandoned animal or self-constructed burrows. The project is not expected to impact this species.

Other birds:

Loggerhead shrike (*Lanius ludovicianus*)

The loggerhead shrike occurs in shrub habitat throughout California, and was observed on the project site. This species is listed as a California Species of Special Concern. The proposed mine project will impact the habitat of this species, but overall effects on populations are not expected on this widespread bird.

Ladder-backed woodpecker (*Picoides scalaris*)

This resident bird inhabits scrub deserts, woodlands, and residential areas in southern California, east to the plains, and south into Mexico. The species was observed in shrubs on the project site on one occasion. The project will impact the habitat of this bird, but will not affect the overall population.

Mammals:

<u>Ringtail *(Bassariscus astutus)*</u>

This small predator is present on the study area, and scat was occasionally observed in underground mine workings. Ringtails are common in rock habitats throughout the southwestern U.S., from Texas to the west coast. The proposed project will impact habitat and displace the animals in the underground workings.

<u>Badger (*Taxidea taxus*)</u>

This short, stout predator is widely distributed in the western U.S., north into Canada, and south into Mexico. Although not observed on Soledad Mountain or in the study area, there is badger habitat on the site and the presence of badgers is possible. The project is not expected to impact this species, if present.

Reptiles:

<u>Chuckwalla (*Sauromalus obesus)*</u>

This large herbivorous lizard inhabits rock outcrops and rock slopes throughout the California deserts. Chuckwallas were not observed on the project study area for the project, but based on habitat affinities, they may potentially occur on the site. Impacts on this species are expected to be minimal, due to a small or non-existent population in the project site.

Warm Season Bat Surveys at Soledad Mountain
Kern County, California

conducted by

Patricia Brown, Ph.D.
Brown-Berry Biological Consulting
134 Wilkes Crest Road
Bishop, California 93514
619 387-2005

conducted for

Mr. Richard Graeme
Golden Queen Mining Company, Inc,
P.O. Box 878
2997 Desert St., Suite # 4
Rosamond, CA 93560-0878

October 28, 1996

Introduction: The purpose of the current surveys was to document the warm season use by bats of the historic mine workings on Soledad Mountain near Mojave, Kern County, California. A previous survey conducted by us between March and June 1990 did not document any bats roosting in the mines. At this time, only mine workings that could be safely entered were surveyed, and no nocturnal monitoring of openings was conducted, nor were winter surveys for hibernating bats. Since 1990, the amount of property likely to be impacted by renewed mining has expanded due to acquisitions of adjacent claims. The property now under the control of Golden Queen Mining Company contains an estimated 700 openings to underground workings, many of which are inaccessible open stopes. The majority of the workings are interconnected so the complex is comparable to Swiss cheese. Conducting a definitive bat survey under these conditions is a challenge.

Methods: Warm season surveys were conducted August 13-14 and October 6-9, 1996. Survey methods consisted of entering accessible adits and shafts in search of bats and guano. At dusk, inaccessible workings were watched with night vision equipment . Anabat ultrasonic detectors connected to tape recorders via delay switches were positioned outside of other workings that could not be safely entered in order to remotely record bat activity. If high levels of sonar signals were recorded within the hour after dark, that opening was targeted for subsequent surveillance with night vision equipment.

Results: During the two survey periods, over 70 workings were entered to search for bats or guano. No bats were observed in the mines during the diurnal surveys, and small amounts of guano (*Myotis* sp.) were observed in only 2 prospects and a stoped adit. Of the 18 separate workings watched at dusk, bats emerged from 4 of them. Two of these had only single little brown bats (*Myotis* sp.) exiting, but in the open stope at the top of the highest west saddle, (in addition to *Myotis)* a light-colored, broad-winged bat (either *Corynorhinus* or *Antrozous*) was seen flying in the stope. On August 14, the large open cut on the southwest side had a large bat exit and then 14 large, light-colored bats entered (including 4 pairs that may have been mother/young couples). No echolocation pulses were detected at this time, which is consistent with the identification of either Townsend's big-eared bat (*Corynorhinus townsendii*) or pallid bat (*Antrozous pallidus*) since both of these species emit faint signals and at times do not ecolocate, but rely on vision. On October 6, 2 bats exited from this stope.

The Anabat recording system was placed in front of 10 separate openings, and some bat activity was detected at all of them, varying from only 2 pulses/night to over 60. Most activity was concentrated in the 2 hours after dusk as determined from the time stamp recorded when the unit was activated. The number of passes does not usually indicate the number of bats. Therefore the openings with high activity on the Anabat were watched at dusk. In one case, a single *Myotis* circled multiple times, triggering the Anabat with each pass. In the open stope above the

Elephant Eagle, almost 50 passes were recorded, most of them within the first hour after dusk. When this opening was watched on the next evening, no bats were seen exiting. Probably the bats detected the observer's presence and left via another opening to the same mine complex.

As a result of this survey, it was determined that at least 2 species roost in the mines at Soledad, but since it was impossible to capture bats exiting from large stopes, absolute identification as to species was not possible. Table 1 lists the species that could occur in the area near Soledad Mountain based on existing range maps, museum specimens and a recent survey completed by us at Edwards Air Force Base. The small bats seen flying around the mines in the evenings are probably California myotis (*Myotis californicus*) and/or western pipistrelle (*Pipistrellus hesperus*). The larger bats are either Townsend's big-eared bats or pallid bats, both of which are California Department of Fish and Game Species of Special Concern. *Corynorhinus* was also a C2 Candidate prior to the deletion of this category by U.S. Fish and Wildlife Service, although they continue to monitor the status of this species. Mexican free-tailed bats (*Tadarida brasiliensis*) were detected flying over the area, but they would probably not be roosting within the mines. They could possibly roost within crevices in large boulders on Soledad Mountain.

Discussion and Recommendations: Only small numbers of bats were discovered in the mine workings that we monitored. However, given the large number of interconnected, inaccessible workings, more bats could be resident within the mines than can be documented. Bats will usually roost in areas that are inaccessible to humans if given an option. When monitoring outflights from mines with multiple entrances, bats can exit out of an opening without an observer. All that can be stated at this point is that some bats of at least 2 species (and possibly 4 different species), are resident within the mines. Excluding the bats from the interconnected mines prior to renewed mining will be a difficult task. The best hope is that as activity begins, the bats will voluntarily desert the mines. If mining commences during the maternity season (May through July), flightless juveniles would be killed.

Many of the mine workings are very cool and could possibly support hibernating bats, and they would probably be killed if mining commenced in the winter months. To eliminate the possibility that the mines are a hibernaculum, a winter bat survey should be conducted in the coolest workings. This will probably entail the use of special vertical techniques to reach otherwise inaccessible areas of the mines.

TABLE 1

BAT SPECIES POTENTIALLY OCCURRING AT SOLEDAD MOUNTAIN

Scientific Name	Common Name	Probability of occurrence	USFWS	CDFG
Vespertilionidae	Plain-nosed bats			
Myotis yumanensis	Yuma myotis	L	C2	-
*Myotis californicus**	California myotis	H	-	-
Myotis ciliolabrum=leibii	Small-footed myotis	M	C2	-
*Pipistrellus hesperus**	Western pipistrelle	H	-	-
Eptesicus fuscus	Big brown bat	M	-	-
Lasiurus cinereus	Hoary bat	L	-	-
Euderma maculatum	Spotted bat	L	C2	CSC
*Corynorhinus townsendii**	Townsend's big-eared	H	C2	CSC
*Antrozous pallidus**	Pallid bat	H	-	CSC
Molossidae	Free-tailed bats			
*Tadarida brasiliensis**	Mexican free-tailed bat	H	-	-
Eumops perotis	Western mastiff bat	L	C2	CSC

USFWS
U.S. Fish and Wildlife Service Endangered Species Act
C2 = recent Category 2 candidate

CDFG
California Department of Fish and Game
CSC = California Species of Concern

Probability of occurrence H=high M=medium L=low
*Bats possiby detected in current survey

Winter Bat Survey at Soledad Mountain
Kern County, California

conducted by

Patricia Brown, Ph.D.
Brown-Berry Biological Consulting
134 Wilkes Crest Road
Bishop, California 93514
619 387-2005

conducted for

Mr. Richard Graeme
Golden Queen Mining Company, Inc,
P.O. Box 820
Mojave, CA 93502

February 3, 1997

Introduction: The purpose of this survey was to document the cold season use by bats of the historic mine workings on Soledad Mountain near Mojave, Kern County, California. The property under the control of Golden Queen Mining Company contains an estimated 700 openings to underground workings, many of which are inaccessible open stopes. The majority of the workings are interconnected so the complex is comparable to Swiss cheese. Conducting a definitive bat survey under these conditions is a challenge. Warm season surveys conducted in August and October 1996 determined that at least 2 species (as determined by size and flight pattern) roost in the mines at Soledad Mountain, but since it was impossible to capture bats exiting from large stopes, absolute identification as to species was not possible. Table 1 lists the species that could occur in the area near Soledad Mountain based on existing range maps, museum specimens and a recent survey completed by us at Edwards Air Force Base. The small bats seen flying around the mines in the evenings were probably California myotis (*Myotis californicus*) and/or western pipistrelle (*Pipistrellus hesperus*). The larger bats are either Townsend's big-eared bats (*Corynorhinus townsendii*) or pallid bats (*Antrozous pallidus*), both of which are California Department of Fish and Game Species of Special Concern. *Corynorhinus* was also a C2 Candidate prior to the deletion of this category by U.S. Fish and Wildlife Service, although they continue to monitor the status of this species, as does the Bureau of Land Management. Mexican free-tailed bats (*Tadarida brasiliensis*) were detected flying over the area, but they would probably not be roosting within the mines. They could possibly roost within crevices in large boulders on Soledad Mountain.

Many of the mine workings are very cool (about 50 F) and could possibly support hibernating bats, therefore necessitating a winter survey. Hibernating bats would select areas in the mines where they would normally not be disturbed by human entry, since any arousal will cause the expenditure of stored fat that is necessary for survival until spring.

Methods: Cold season surveys were conducted between January 4-6, 1997, during a period of cool and windy weather with low temperatures around 22 F and highs in the low 50's. Survey methods consisted of entering accessible adits and shafts in search of bats and guano. Dr. Scott Altenbach of the University of New Mexico utilized a hoist to reach otherwise inaccessible levels in vertical shafts.

Results: During this survey, over 30 mine openings were entered to search for bats or guano, although an accurate count of the number of workings is difficult since many of them connect underground at various levels. The lower levels usually are cooler and would provide more desirable temperatures for hibernating bats. Temperatures in many of the lower levels of the breathing mines were between 45 and 55 F which is cool enough for hibernation for desert bat species. The hoist system was used by Dr. Altenbach to access 5 shafts (report attached). No bats were observed in the mines during the surveys, and only a few pieces of fresh guano (*Corynorhinus*) were found in one of the Bobtail Mine adits by Brown and Berry.

Discussion and Recommendations: Only small numbers of bats were discovered exiting the mine workings that we monitored during the warm season surveys, and no bats were encountered in the workings entered during the winter. However, given the large number of interconnected, inaccessible (and unsurveyed) workings, more bats could be resident within the mines than were observed. Bats will usually roost in areas that are inaccessible to humans if given an option. Some of the workings surveyed with ropes or a hoist could not have been previously disturbed by people, and yet no bats were encountered. Temperatures measured in some areas in the winter were suitable for hibernating bats. The paucity of bats in the vicinity of Soledad Mountain may be due to the high winds that are present most nights throughout the year. Previous bat surveys conducted near Mojave showed that few bat sonar pulses were detected at times when wind speeds exceeded 20 mph. Insect availability decreases as winds increase, and bats have difficulty flying in winds above 20 mph. Winds in excess of 20 mph are a common occurrence near Soledad Mountain.

In this mining project, it is fortunate that few bats were found, since excluding the bats from the interconnected mine workings prior to renewed mining would be a difficult task (and probably impossible). The best hope is that as mining activity begins, any bats present will voluntarily desert the mines. If mining commences during the maternity season (May through July), any flightless juveniles could be killed. Hibernating bats in the winter might also perish. Bats roosting in rock crevices around the Soledad Mountain would be affected as well as those living in mines. The number of bats possibly killed by the mining activity should be low if the results of these surveys are any indication. As mitigation for any loss of roosting habitat, several mine workings that will not be disturbed by the project (on lands controlled by Golden Queen Mining Company) will have gates installed that exclude humans, but allow bat access. These workings should be monitored during warm and cold seasons for several years after gating to assess the success of this mitigation method.

TABLE 1

BAT SPECIES POTENTIALLY OCCURRING AT SOLEDAD MOUNTAIN

Scientific Name	Common Name	Probability of occurrence	USFWS	CDFG
Vespertilionidae	Plain-nosed bats			
Myotis yumanensis	Yuma myotis	L	C2	-
*Myotis californicus**	California myotis	H	-	-
Myotis ciliolabrum=leibii	Small-footed myotis	M	C2	-
*Pipistrelius hesperus**	Western pipistrelle	H	-	-
Eptesicus fuscus	Big brown bat	M	-	-
Lasiurus cinereus	Hoary bat	L	-	-
Euderma maculatum	Spotted bat	L	C2	CSC
*Corynorhinus townsendii**	Townsend's big-eared	H	C2	CSC
*Antrozous pallidus**	Pallid bat	H	-	CSC
Molossidae	Free-tailed bats			
*Tadarida brasiliensis**	Mexican free-tailed bat	H	-	-
Eumops perotis	Western mastiff bat	L	C2	CSC

USFWS
U.S. Fish and Wildlife Service
Endangered Species Act
C2 = recent Category 2 candidate

CDFG
California Department of Fish and Game
CSC = California Species of Concern

Probability of occurrence H=high M=medium L=low
*Bats possibly detected in current summer survey

To: Dr. Patricia Brown-Berry
Brown-Berry Biological Consulting

From: Dr. J. Scott Altenbach
Department of Biology
University of New Mexico
Albuquerque, NM 87131

A SUMMARY REPORT ON INTERNAL BAT SURVEYS OF ABANDONED MINE FEATURES AT SOLIDAD MOUNTAIN, MOJAVE, CA
Exploration 4 - 6 January, 1997

Shaft Feature # 1 (Elephant Eagle Mine)

Description: This is a 40 ft shaft with a 30 ft stoped drift to the Southeast at about 20 ft and stoped drifts to the Southeast and Northwest at the level of the sump. There is no connection to other workings.

Percent of Mine Workings Seen: All

Description of Bat Use: No sign of bat use was observed.

Recommendation: This feature could be consumed by the open pit or waste rock without consequence.

Shaft/Open Stope Feature # 2 (Elephant Eagle Mine)

Description: This is an open stope which is one of multiple openings in a stoped vein system with a Northwest/Southeast strike and a steep dip to the Northeast. The squareset timbering which is situated at what looks like a shaft collar may indicate the opening was used for removal of ore at one time. I descended about 50 down this stope and could see down another 25 to 30 ft. Deeper descent was blocked by an elongate stock tank wedged precariously between the hanging wall and foot wall. From this point I could see that the stope continued along a Southeast strike. The stope continued to the Northwest and opened at multiple points to the surface.

Percent of Mine Workings Seen: Unknown, probably only a small portion.

Description of Bat Use: No sign of bat use was observed.

Recommendation: This feature could be consumed by the open pit or waste rock dump without consequence. Any volant wildlife, bats included, could easily exit this feature as disturbance from backfilling or blasting approached.

Adit Assoc. with Shaft/Open Stope Feature # 2 (Elephant Eagle)

Description: This is an adit entry to over 1000 ft of drifts and stopes on the adit entrance level. Stopes and ore passes continue below as well as above at least 100 ft. Based on strong, cold airflow from above, many clearly connect to surface openings above. I evaluated only the adit level workings.

Percent of Mine Workings Seen: Unknown, probably only a small portion.

Description of Bat Use: No sign of bat use was observed.

Recommendation: This feature could be consumed by the open pit or waste rock dump without consequence. Any volant wildlife, bats included, could easily exit this feature as disturbance from backfilling or blasting approached.

Adit Feature above Karma Shaft (Mine Name Unknown, Karma?)

Description: This is an adit entry to over 1000 ft of drifts on the adit entrance level. Ore passes continue below at least 100 ft. I evaluated only the adit level workings.

Percent of Mine Workings Seen: Unknown, probably only a small portion.

Description of Bat Use: No sign of bat use was observed.

Recommendation: This feature could be consumed by the open pit or waste rock dump without consequence. Any volant wildlife, bats included, could easily exit this feature as disturbance from backfilling or blasting approached.

Adit Feature (Starlight/Golden Queen Complex)

Description: This is an adit entry to thousands of feet of drifts on the 200 level. It intersects/connects with huge stopes and clearly connects all the way to the 600 level as indicated by the fumes we smelled from a blast on the 600 level. We explored this mine above the 200 to the zero level and 100 ft below the 200 level.

Percent of Mine Workings Seen: Unknown, probably only a small portion.

Description of Bat Use: No sign of bat use was observed although we covered thousands of feet of drifts and large stopes over a vertical relief of over 300 ft.

Recommendation: This feature could be consumed by the open pit or waste rock dump without consequence. Any volant wildlife, bats included, could easily exit this feature as disturbance from backfilling or blasting approached.

Shaft Feature on West Edge of Proposed Cell 3 (Shaft West of Existing Mill Tailings

Description: This is about a 200 ft shaft. The first 100 ft is through alluvial material with cobbles of various sizes imbedded in sand. The timbering of the narrow hoist compartment and manway is intact an almost fully lagged. At somewhat over 80 ft, there is a transition to soft, moist, uncemented sand which can be dug with a finger. At this transition the timber becomes loose and by 100 ft all timber is gone. Large chunks of sand have fallen away from the rib and the sandy rib can be seen all the way to a sand plug at about 200 ft. I did not descend below 100 ft because of the high probability of falling timber and large chunks of the sandy rib. I could see the bottom but could not see any lateral workings. They are almost certainly buried by the large amount of sand which has fallen off of the rib after the fall of the timber and lagging.

Percent of Mine Workings Seen: Unknown but any lateral workings are very likely buried.

Description of Bat Use: No sign of bat use was observed. The plate timbers and offsets in the manway were carefully checked for bat sign but none was noted.

Recommendation: This feature could be backfilled without consequence to any wildlife. I would recommend that the timber be burned before backfilling so that backfill will completely fill the shaft and not leave voids along the shaft rib.

Shaft Feature on West Edge of Proposed Cell 4 (Shaft Below and to the West of the Karma)

Description: This shaft is in competent rock and roughly 80 ft deep. The collar set and first few plate sets remain and some 1 X 12 inside lagging is still attached. There appear to be drifts to the East and West at the sump level but access is blocked by plate timber, long pieces of lagging, rocks and dirt which have fallen from the collar and rib.

Percent of Mine Workings Seen: Unknown, but I do not believe the lateral workings are extensive.

Description of Bat Use: I looked carefully at the "jackstrawed" timber and material at the bottom of this shaft and saw no sign of bat use.

Recommendation: This feature could be backfilled without consequence to any wildlife if it is done in **warm season (May through September)**. I would recommend that the timber at the bottom and that which still remains below the collar be burned before backfilling so that backfill will completely fill the shaft and not subside later when the wood at the bottom decomposes to give fill material access to whatever lateral workings there may be.

Shaft Feature Above and Southeast of the Karma (Independant)

Description: This shaft is in competent rock and is roughly 120 ft deep. It dips about 20 degrees from vertical to the West and there is a drift to the Southeast at about 70 ft. There appears to be a drift at the sump level but access is blocked by footwall plates which have fallen and are wedged in place with large to medium sized rocks. The drift at the 70 ft level is blocked at about 50 ft by loose material which has almost certainly fallen out of an overhand stope or old ore pass. The wood posts and a door near the beginning of the drift are badly decomposed and wood blocking the ore pass could have collapsed and allowed the run of loose material. This drift almost certainly connected to the shaft immediately to the Southeast along the strike of the vein.

Percent of Mine Workings Seen: Unknown. The sump level working could be extensive.

Description of Bat Use: I looked carefully in the drift and at the material at the shaft bottom and saw no sign of bat use.

Recommendation: This feature could be consumed by the open pit without consequence to any bats. I would **recommend that if it is backfilled with waste rock, the backfilling be started slowly during warm season (May through September) to give any bats which might be there the chance to be driven out by the dust and crashing of the first rocks.**

Adit Feature Above the Karma Shaft (Karma)

Description: This is an entry to several hundred feet of drift on the adit entry level. It intersects/connects with stopes above and huge stopes fully 200 ft below where a haulage level connects to an opening to the hillside.

Percent of Mine Workings Seen: Unknown, probably only a small portion.

Description of Bat Use: No sign of bat use was observed although we covered hundreds of feet of drifts and large stopes over a vertical relief of over 200 ft.

Recommendation: This feature could be consumed by the open pit or waste rock dump without consequence. Any volant wildlife, bats included, could easily exit this feature as disturbance from backfilling or blasting approached.

SUMMARY

I have spent well over 7000 hours underground in abandoned mines in New Mexico, Colorado, Texas, Nevada, Arizona, Minnesota, Michigan and Wisconsin looking for bat activity. In that experience, I have never seen mine features with so much appropriate habitat for bats that are as devoid of bats, or even sign of bats, as the mine working in Solidad Mountain. The vast majority of these workings are dry enough that bat guano should remain intact and obvious for many years. Parts of the workings had temperatures that would be ideal for hibernation of some species and even though I looked carefully, in many cases where no humans had been for decades, I saw none. Although the "absence of evidence" is not necessarily "evidence of absence", I believe that if there were significant numbers of bats using these workings, I would have seen some sign. As I have stated in the accounts above, I saw no sign whatever.

In mines which have so many large, interconnected, and often nearly inaccessible openings, exclusion of bats would be a virtual impossibility. In as much as a high proportion of the abandoned workings are interconnected and have multiple openings to the surface at a variety of levels, I believe that even if there were a few bats present in the workings, they could escape the advance of the open pit mining. The shafts that are to be covered with the leach pads do not present significant, unvisited habitat as one is filled above lateral workings and the other, which has too small a dump to have extensive workings, is nearly so.

I think it would be prudent that some of the old workings on the mountain should be left open so that if any bats are displaced by mining activities, there will be available habitat. As I look at the map of the proposed open pit(s) and waste rock dumps, it appears that this is the case. Given the unprescidented absence of bats and bat sign during the exploration of a very large amount of mine workings and given that at least some old workings remain, I do not believe that the proposed mining activity will have a significant impact on what bats may be present in the area.

J. Scott Altenbach, Ph.D.
Professor

J Scott Alt

APPENDIX C

MOHAVE GROUND SQUIRREL SURVEY

A Survey for Mojave Ground Squirrels
Soledad Mountain Project
Mojave, Kern County, California

Prepared for

P.M. De Dyker & Associates
12596 West Bayaud Avenue
Lakewood, Colorado 80228

By

Dr. Patricia Brown
Biological Consultant

658 Sonja Court
Ridgecrest, California 93555

619 375-5518

August 2, 1990

INTRODUCTION

A live-trapping study was conducted in order to ascertain whether Mojave ground squirrels (Spermophilus mohavensis) occur on the Soledad Mountain Project located in portions of sections 1, 12 and 13 of Township 10 N, Range 13 W. and sections 5, 6, 7, 8, and 18 of Township 10 N., Range 12 W. in the unincorporated area of the County of Kern, State of California. The Mojave ground squirrel (MGS) is listed as Threatened by the California Department of Fish and Game and was trapped in the city of Mojave approximately 10 years ago by Dr. Tony Recht (pers. comm. 1990).

METHODS

In conducting the live-trapping survey, the 1990 revised Mojave Ground Squirrel Survey Guidelines of the CDFG were followed. Two 100-trap grids of either 5 by 20 or 4 by 25 Pymatuning traps spaced 25 meters apart were laid out in the vegetation and habitat types most likely to support Mojave ground squirrels. The majority of Soledad Mountain is steep, rocky terrain with scattered mine tailings which was deemed unsuitable as MGS habitat. However, to the west of the mountain are level areas which are planned to be heap leach pads and mine dump sites, and upon which two habitat types occur which could support MGS. Grid 1 was located on a sloping alluvial fan in the west central portion of Section 7, R12W, T10N in an area of creosote bush/Joshua tree scrub on loose sandy loam crossed by several shallow washes. Grid 2 was on flat creosote bush scrub with scattered Joshua trees on more compacted clay soil west of Tropico Road in the south central portion of Section 1, R13W, T10N. Both areas supported a good cover of annual plants this spring, especially fiddleneck (Amsinckia tessellata), which is a favorite food of MGS. Another preferred food plant, wolfberry (Lycium andersonii), was flowering and fruiting. Both areas had received minimal surface disturbance and appeared to represent good MGS habitat.

The traps were baited with commercial horse feed ("sweet feed") and a mixture of rolled oats and peanut butter. Traps were opened from approximately 9 AM to 6 PM each day for 5 days for a total of 4500 trap/hours per session. The first trapping session was conducted from March 29 through April 3, and the second from May 7 through 11, 1990. On the night of April 2, traps were left open throughout the night to sample nocturnal rodents. All captured animals were weighed and their sex and reproductive status recorded. They were then labeled on their stomach with a waterproof marking pen for future identification.

During the first trapping session, daytime temperatures ranged between 70 and 85 F, and during the second period the diurnal range was 75 to 90 F. Typically mornings were clear and still with strong winds usually arising in the mid-afternoon, although during both sessions at least one day was overcast and windy.

RESULTS

Although the habitat was equivalent to that in which Mojave ground squirrels occur throughout their known range, none were captured or observed during the course of the survey. However, during the April-May session, 4 captures of 2 pregnant Antelope ground squirrels (Ammospermophilus leucurus) occurred on Grid 1 and 14 captures of 6 individual AGS on Grid 2 comprised of 2 lactating and 1 non-reproductive female and 2 scrotal and 1 non-scrotal male. During the May trapping period, Grid 1 had 35 captures of 16 individual AGS which included 6 lactating, 1 post-lactating, 1 non-reproductive and 2 juvenile females and 3 scrotal and 3 non-scrotal males. On Grid 2, 10 AGS were captured 25 times (4 lactating and 1 juvenile female and 3 scrotal and 2 non-scrotal males).

During the nocturnal trapping, 20 Merriam's kangaroo rats (Dipodomys merriami) (7 males, 8 females and 5 not sexed) were captured on Grid 2 and 4 kangaroo rats (2 males and 2 females) on Grid 1. The Pymatuning traps are not sensitive enough to capture any rodent smaller than a kangaroo rat.

CONCLUSIONS

During the course of the trapping survey conducted on two grids to the west of Soledad Mountain near Mojave, no Mojave ground squirrels were captured or observed. However, this area lies within 5 miles of a known past record for this species. Because of the drought conditions, the Mojave ground squirrel populations have been severally impacted throughout their range. Researchers have not found them in areas in 1989 and 1990 were they had been captured in the past during the same season. In areas where they have been trapped during 1989 and 1990, few animals had reproduced.

This bias should be considered in evaluating the results of current trapping studies.

The Antelope ground squirrels appeared to be common and reproducing on both grids. On Grid 1, 8 times as many animals were captured in May as in the March 29 to April 3 session, while on Grid 2, the number in May only doubled over the results of the first trapping period.

APPENDIX D

DESERT TORTOISE PRE-CONSTRUCTION

CLEARANCE SURVEYS

Desert Tortoise Pre-construction Clearance Surveys
April, 1997

Prepared for:

Soledad Mountain Project
Golden Queen Mining Company, Inc.
11847 Gempen Street
Mojave, CA 93501

Prepared by:

Bamberg Associates Environmental Services
26050 E. Jamison Circle
Aurora, CO 80016

April 15, 1997

1.0 Introduction

Intensive surveys for the desert tortoise (*Gopher agassizii*) were conducted on portions of the Soledad Mountain Project with suitable habitat. The purpose of these surveys was to confirm the presence or absence of tortoises during an optimum time of year. The surveys are to serve as pre-construction surveys to permit activities to begin during later 1997.

The desert tortoise is a federal listed endangered species. Though the area around Soledad Mountain is not officially designated as desert tortoise habitat, it does contain tortoise habitat requirements. The nearest designated preserve, the Desert Tortoise Natural Area, is north of California City, approximately 20 miles to the northeast and east of the project site (Figure 1-1).

Desert tortoise surveys have been previously performed on the Soledad Mountain property. Surveys were conducted in areas with suitable habitat in 1990 and 1995. No live tortoises or recent active sign of any type were observed during these surveys. One mummified tortoise was found at the bottom of a mine shaft by Dr. Pat Brown in 1990 during bat surveys, indicating an earlier presence of tortoises in this area.

2.0 Methods

The survey was conducted April 4 and 5, 1997 as a two-level effort. The first level consisted of reconnaissance transects walked through all suitable tortoise habitat in the study area. The purpose of this reconnaissance was to locate any tortoise sign over a large area, and then concentrate surveys if tortoise sign was observed. A second level survey was performed by the same observer in a 200 feet grid in areas specifically slated for construction disturbance. Any area that could entrap a tortoise, such as shallow shafts and adits, was also examined for tortoise remains in this second area.

All types of tortoise sign (live animals, tracks, shell remains, active and inactive burrows, pallets, scat, courtship rings and drinking depressions) were looked for during the survey. Any observed sign would be noted. If definite sign were observed, then it would be closely examined for recent use, relationship to surrounding conditions and photographed. Predator roost sites, and any observed predator scat or regurgitation pellets, were also examined for tortoise remains.

3.0 Results

No direct or indirect sign of desert tortoises was observed during these surveys on the study area. No live tortoises were observed, nor were any desert tortoise shells, burrows, pallets, scat or drinking depressions located. All tracks and wildlife trails observed were consistent with small mammals. No tortoise remains were found among predator nest litter or in predator scat or regurgitation pellets, and no sign of tortoise use or occupation were noted in shafts or adits. Specific areas surveyed are discussed below (see Figure 3-1 for a map of the reconnaissance surveys and survey grid locations).

3.1 Reconnaissance surveys

<u>Survey Site One</u> This site consisted of transects walked moving east from the office complex to the eastern boundary ridge and included the drainage north of the road, the

western edge of the proposed heap and the perimeter of the entire existing heap site. Small mammals trails/tracks and scat were observed under shrubs in this area. These included black-tailed jackrabbit (*Lepus californicus*), ground squirrels, packrat (*Neotoma lepida*) and kangaroo rat (*Dipodomys merriami*). Coyote (*Canis latran*) or fox (*Vulpes macrotis* or *Urocyon cinereoargenteus*) scat, packrat and rabbit scat was also observed in this area. A large barn owl (*Tyto alba*) roost in an abandoned building and a roost in a shallow shaft was littered with regurgitation pellets that contained rodent skulls, tibias, inner ear vestibules and scapulas, but no tortoise bones or shells. No tortoise sign was observed.

Survey Site Two These transects included the West Dump Site. Transects were walked in the same locations as the 1990 and 1995 surveys. No tortoise sign was observed.

Survey Site Three These transects were conducted at the Southwest Dump Site (east of a residence) and included an alluvial fan and topographical toe slopes. A road runner (*Geococcyx californianus*) and Audubon cottontail (*Sylvilagus audubon*i) were observed during these transects. An old eroded sheep skull was also located. No tortoise sign was observed.

Survey Site Four These transects were performed in the east dump area. This area has been subjected to recent burns, and was heavily grazed by sheep in 1990. No tortoise sign was observed and the habitat was marginal.

3.2 Close spaced grid surveys

Survey Site Five This site included the west end of the leach heap pad and was surveyed on a 200 foot grid as well as specific surveys in likely habitats not on the grid pattern. Two mine shafts were also examined at this site. Litter under a barn owl roost in the bottom of one of the shallow shafts included three packrat carcasses. The owl was observed roosting on a beam in the shaft. An animal burrow located under a Joshua tree (*Yucca brevifolia*) was determined not to be of tortoise origin. Packrat and fox scat were found in the vicinity of the burrow. A pair of breeding pigeons (*Columba livia*) was found in the second shaft, but no tortoise sign. A black-tailed jackrabbit, antelope ground squirrel (*Ammospermophilus leucurus*), and California ground squirrel (*Spermophilus beechyi*) were observed at this site. No tortoise sign was observed.

Survey Site Six This site was also surveyed on a 200 foot grid. This area has extensive previous disturbance from historic mining including homesites. No tortoise sign was observed.

Survey Site Seven This site was also surveyed on a 200 foot grid. An American kestrel (*Falco sparverius*) was observed overhead at this site. No tortoise sign was observed.

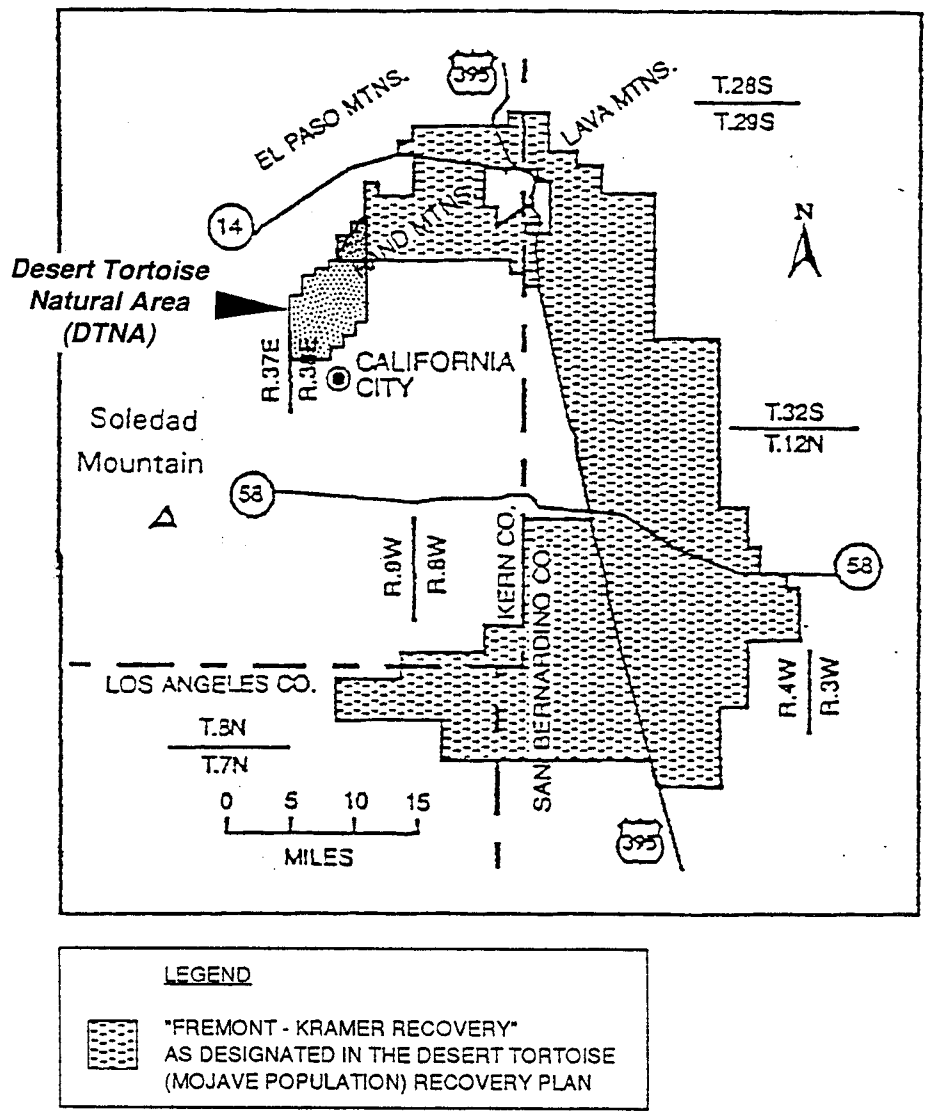
A close spaced grid survey was not conducted in the area of survey site four because the habitat was marginal and no desert tortoise were observed in other grid surveys containing more suitable habitat.

4.0 Survey Conclusions

Despite the fact that the Soledad Mountain site contains appropriate habitat for desert tortoise, this survey, like those conducted in 1990 and 1995, located no direct or indirect sign of desert tortoise habitation. The United States Fish and Wildlife Service also reports that recent surveys west of State Route 14 in the Antelope Valley have also not detected tortoises. While this region of the Antelope Valley may have supported the tortoise in the past, human activities such as mining, and road and building construction have undoubtedly reduced the populations and quality of habitat for tortoises and they no longer inhabit the area. The potential for tortoise to reestablish east of the interstate is low to nonexistent.

Historic mine sites at other desert locations in California have been observed by the surveyor to be devoid of or have few tortoises. Around Soledad Mountain, subsequent roads, agriculture and residential/commercial development have slowed or prevented the desert tortoise from reinhabiting former territory within its range.

Figure 1-1. Relative locations of the Soledad Mountain Project and the Desert Tortoise Natural Area.



APPENDIX A

PLANT SPECIES LIST AND ANIMAL SPECIES LIST

APPENDIX A - PLANT SPECIES LIST AND ANIMAL SPECIES LIST

Table A-1 List of Plant Species, Soledad Mountain Project	
Scientific Name	**Common Name**
Trees and Tall Shrubs	
Yucca brevifolia	joshua tree
Shrubs	
Acamptopappus sphaerocephalus	goldenhead
Ambrosia dumosa	burrobush
Atriplex confertifolia	shad scale
Atriplex polycarpa	cattle spinach
Chrysothamnus nauseosus	rubber rabbitbrush
Chrysothamnus teretifolius	terete rabbitbrush
Encelia virginensis	acton encelia
Ephedra nevadensis	joint-fir
Ericameria cooperi	goldenbush
Ericameria cuneata	goldenbush
Ericameria laricifolia	turpentine bush
Ericameria linearifolia	interior goldenbush
Ericameria palmeri	goldenbush
Eriogonum fasciculatum	California buckwheat
Eriogonum heermannii	hermann buckwheat

Table A-1 List of Plant Species, Soledad Mountain Project	
Scientific Name	**Common Name**
Eriogonum plumatella	flat-top buckwheat
Grayia spinosa	spiny hop-sage
Gutierrezia microcephala	sticky snakeweed
Gutierrezia sarothrae	broom snakeweed
Hymenoclea salsola	cheesebush
Krascheninnikovia lanata	winter fat
Larrea tridentata	creosote bush
Lycium andersonii	box thorn
Lycium cooperi	box thorn
Stephanomeria pauciflora	wire lettuce
Tetradymia axillaris	striped horsebrush
Tetradymia glabrata	felt-thorn
Xylorhiza tortifolia	mojave-aster
Grasses	
Achnatherum speciosum	desert needlegrass
Achnatherum hymenoides	indian ricegrass
Aristida adscensionis	three-awn
Bromus diandrus	ripgut grass
Bromus hordeaceus	soft cheese

Table A-1 List of Plant Species, Soledad Mountain Project	
Scientific Name	**Common Name**
Bromus madritensis	red brome
Bromus tectorum	cheat grass
Elymus elymoides	squirreltail
Hordeum jubatum	foxtail barley
Hordeum murinum	Mediterranean barley
Muhlenbergia richardsonis	may muhly
Poa secunda	bluegrass
Pleuraphis rigida	big galleta grass
Schismus arabicus	tufted grass
Schismus barbatus	Mediterranean grass
Sporobolus flexuosus	mesa dropseed
Trisetum canescens	trisetum
Vulpia octoflora	six-week fescue
Herbaceous Perennials and Annuals	
Abronia villosa	sand verbena
Allium haematochiton	onion
Allium parryi	onion
Amsinckia tessellata	fiddleneck
Arabis inyoensis	rock cress

Table A-1 List of Plant Species, Soledad Mountain Project	
Scientific Name	**Common Name**
Astragalus lentigenosus	locoweed
Calochortus kennedyi	mariposa lily
Camissonia brevipes	evening primrose
Camissonia lacustris	big tooth-leaved primrose
Centrostegia thurberi	thurber's spineflower
Chaenactis fremontii	fremont's pincushion
Chamaesyce albomarginata	white-fringed sandmat
Claytonia perfoliata	miner's lettuce
Coreopsis bigelovii	tickseed
Cryptantha circumscissa	western forget-me-not
Cryptantha pterocarya	wing-nut forget-me-not
Dalea mollis	soft indigo
Delphinium andersonii	Anderson's larkspur
Delphinium parishii	larkspur
Dichelostemma capitatum	blue dicks
Eriastrum diffusum	eriastrum
Eriogonum baileyi	bailey buckwheat
Eriogonum fasciculatum	California buckwheat
Eriogonum gracillimum	slender-stemmed buckwheat

Table A-1 List of Plant Species, Soledad Mountain Project	
Scientific Name	**Common Name**
Eriogonum nidularium	whisk broom
Eriogonum reniforme	kidney-leaved buckwheat
Eriogonum trichopes	little trumpet
Eriophyllum lanosum	wooly sunflower
Eriophyllum multicaule	wooly sunflower
Eriophyllum pringlei	pringle's wooly sunflower
Eriophyllum wallacei	wallace's wooly sunflower
Erodium circutarium	storksbill
Eucrypta micrantha	eucrypta
Gilia spp.	gilia
Gilia brecciarum	gilia
Guillenia lasiophylla	California mustard
Layia glandulosa	white layia
Linanthus parryae	linanthus
Lessingia lemmonii	vinegar weed
Lomatium mohavense	mohave wild parsley
Lupinus brevicaulis	sand lupine
Malacothrix californica	desert dandelion
Malacothrix coulteri	snake's head

Table A-1 List of Plant Species, Soledad Mountain Project	
Scientific Name	**Common Name**
Mentzelia pectinata	mentzelia
Mentzelia albicaulis	small-flower blazing star
Mirabilis bigelovii	four o'clock
Mirabilis multiflora	four o'clock
Monoptilon bellioides	desert star
Nama demissum	purple mat
Nemophila pedunculata	nemophila
Oenothera deltoides	basket evening primrose
Oenothera villosa	evening primrose
Pectocarya recurvata	comb-bur
Pectocarya setos	comb-bur
Petalonyx thurberi	sandpaper plant
Phacelia glandulifera	tackstem phacelia
Pholistoma membranaceum	fiesta flower
Plantago ovata	plantain
Platystemon californicus	cream cups
Salvia carduacea	thistle sage
Salvia columbariae	chia
Sisymbrium altissimum	tumble mustard

Table A-1 List of Plant Species, Soledad Mountain Project	
Scientific Name	**Common Name**
Sisymbrium irio	London rocket
Sphaeralcea ambigua	apricot mallow
Stephanomeria parryi	wire lettuce
Stephanomeria spinosa	skeleton weed
Streptanthella longirostris	small jewelflower
Thelypodium intergrifolium	thelypodium
Xylorhiza tortifolia	mojave-aster
Cactus	
Ferocactus cylindraceus	barrel cactus
Opuntia basilaris	beavertail cactus
Opuntia echinocarpa	golden cholla

Table A-2
Wildlife Species Present, Soledad Mountain Project

Scientific Name	Common Name	Identif-cation[1]	Status[2]
BIRDS			
Raptors			
Aquila chrysaetos	Golden eagle	Obs	CSSC
Buteo jamaicensis	Red-tailed hawk	Obs	
Falco peregrinus	Peregrine falcon	Obs	FE/SE
Falco sparverius	American kestrel	Obs	
Speotyto cunicularia	Burrowing owl	Pos	BLM/FWS/CSSC
Tyto alba	Barn owl	Pos	
Game Birds			
Alectoris graeca	Chukar	Obs	
Lophortyx californicus	California quail	Obs	
Zenaida macroura	Mourning dove	Obs	
Other Birds			
Amphispiza bileneata	Black-throated sparrow	Obs	
Carpodacus casinii	House finch	Obs	
Cathartes aura	Turkey vulture	Obs	
Cathatus guttatus	Hermit thrush	Obs	
Columba livia	Rock dove (domestic pigeon)	Abt	
Corvus corax	Raven	Abt	
Dendroica coronata	Yellow rumped warbler	Obs	
Eremophila alpestris	Horned lark	Abt	
Junco hyemalis	Oregon junco	Obs	
Lanius ludovicianus	Loggerhead shrike	Obs	BLM/FWS/CSSC
Picoides scalaris	Ladder backed woodpecker	Obs	CSSC
Salpinetes obsoletus	Rock wren	Obs	
Sayornis saya	Say's phoebe	Obs	

Table A-2
Wildlife Species Present, Soledad Mountain Project

Scientific Name	Common Name	Identif-cation[1]	Status[2]
Spizella breweri	Brewer's sparrow	Obs	
Tachycineta thalassina	Violet green swallow	Abt	
Toxostoma lecontei	Le Conte's thrasher	Obs	CSSC
Zonotrichia atricapilla	White crowned sparrow	Obs	
REPTILES			
Callisaurus draconoides	Zebra-tailed lizard	Obs	
Cnemidophorus tigris	Western whiptail	Obs	
Crotalus scutulatus	Mojave rattlesnake	Obs	
Crotophytus insularis	Desert collared lizard	Obs	
Dipsosaurus dorsalis	Desert iguana	Obs	
Gopherus agassizii	Desert tortoise	Pot	BLM/FT/ST
Pituophis melanoleucus	Gopher snake	Obs	
Sauromalus obesus	Chuckwalla	Pos	BLM/FWS
Sceleporus magister	Desert spiny lizard	Obs	
Uta stansburiana	Side-blotched lizard	Abt	
RODENTS			
Chaetodipus penicillatus	Desert pocket mouse	Pos	
Dipodomys merriami	Kangaroo rat	Obs	
Perognathus longimembris	Little pocket mouse	Pos	
Neotoma lepida	Desert woodrat (packrat)	Obs	
Peromyscus crinitus	Canyon deermouse	Obs	
Peromyscus maniculatus	Long-tailed deermouse	Pos	
BATS			
Antrozous pallidus	Pallid bat	Pos	CSSC
Eptesicus fuscus	Big brown bat	Pos	
Eumops perotis	California mastiff bat	Pos	
Myotis californicus	California myotis	Obs	

Table A-2 Wildlife Species Present, Soledad Mountain Project			
Scientific Name	**Common Name**	**Identif-cation[1]**	**Status[2]**
Pipistrellus hesperus	Canyon bat	Obs	
Corynorhinus townsendii	Townsend's big-eared bat	Pos	CSSC
Tadarida brasiliensis	Mexican free-tailed bat	Obs	
SMALL MAMMALS			
Spermophilus mohavensis	Mojave ground squirrel	Pot	ST
Ammospermophilus leucurus	Antelope ground squirrel	Abt	
Spermophilus beechyi	California ground squirrel	Obs	
Lepus californicus	Black-tailed jackrabbit	Obs	
Sylvilagus auduboni	Audubon cottontail	Obs	
Thomomys bottae	Valley pocket gopher	Pos	
PREDATORS			
Bassariscus astutus	Ringtail cat	Obs	CProt
Canis latrans	Coyote	Obs	
Lynx rufus	Bobcat	Obs	
Taxidea taxus	Badger	Pos	CSSC
Urocyon cinereoargenteus	Gray fox	Pos	
Vulpes macrotis	Desert kit fox	Pos	

Legend:

1 Identification

Obs - observed by sight or sign
Abt - abundant by sight or sign
Pos - possible on site, but not observed
Pot - potential habitat on site, but not observed or expected

2 Status

BLM - US Bureau of Land Management sensitive species
FWS - US Fish and Wildlife Service sensitive species
FE - Federal listed as endangered
SE - State listed as endangered
FT - Federal listed as threatened
ST - State listed as threatened
CSSC - State Special Species of Concern
CPROT - State protected species

APPENDIX B

BAT SURVEYS

A SURVEY FOR BATS OF THE SOLEDAD MOUNTAIN PROJECT
MOJAVE, KERN COUNTY, CALIFORNIA

Prepared by

PATRICIA E. BROWN, Ph.D.
WILDLIFE BIOLOGIST

658 Sonja Court
Ridgecrest, CA 93555

(619) 375-5518

For

P.M. De Dyker & Associates
12596 West Bayaud Avenue
Lakewood, Colorado 80228

July 2, 1990

INTRODUCTION

A field survey was conducted for sensitive bat species in the the mines of the Soledad Mountain Project located near Mojave in Sections 5 through 9 of Township 10 North, Range 12 West in the unincorporated area of the County of Kern, State of California. The mining activities span the period between the 1880's to the present, although most work ceased about 1942. The workings themselves are numerous and range from traditional adits and shafts to the excavation of parallel veins which intersect the surface as stopes and glory holes. The present plans for the mountain include a large open pit mine, mill site and heap leech operation. Since mines can provide refugia for bats and other wildlife, a survey was conducted of the present underground workings. Special attention was given to looking for Townsend's big-eared bat (Plecotus townsendii) which is a California Department of Fish and Game (CDFG) Species of Special Concern and United States Fish and Wildlife Service (USFWS) Category 2 Candidate Species for Threatened or Endangered Status.

Townsend's big-eared bat is basically a cave-roosting species that has moved into man-made caves such as mines and buildings. Unlike many other bats, they are unable to crawl into crevices, and usually roost in exposed areas where they are vulnerable to disturbance. Plecotus is quite sensitive to human disturbance, and this appears to be the primary cause of population decline for this species. This bat is colonial during the maternity season, when compact clusters of up to 200 individuals might be found. Maternity roosts form in the spring and remain intact during the summer. Great fidelity exists for a roost site, and if undisturbed the bats will use the same roost for many generations.

In the winter, Plecotus hibernate in cool caves and mine tunnels. Hibernation is a critical time for the species, since disturbance which causes arousal may expend energy reserves needed to survive the winter. The hibernation period in the California desert will vary with ambient temperature, but is generally from late November through early March.

METHODS

The mine survey was conducted from March 29 through April 2 and June 23 to 25, 1990. Survey methods consisted of entering mines during the day, and noting any bats, guano or other animal sign present. Temperature and humidity readings were taken in several of the mines.

On the evening of June 23 a mist net was placed over the entrance of the Soledad Extension to capture any bats as they emerged at dusk. On April 2 and June 24, mist nets were placed near a water tank on the north boundary of the project. A bat detector was used to monitor ultrasonic signals since many species emit distinctive sonar signals. A night vision scope was employed to watch bats flying over the tank in order to determine the species and approximate number present.

RESULTS

Of the over 100 mine workings occurring on Soledad Mountain which would be impacted by the proposed project, over 55 were deemed safe enough to enter to check for bats or other animal sign. Among these were the workings of the Golden Queen, Queen Esther, Elephant, Eagle, Bobtail, Starlight, Gypsy, Echo, Miner's Dream, Abertolli and 4 Jacks. No bats or guano were seen during this survey. Many of the mines had shafts or cross-cuts to the surface, and so cool drafts ran through the workings. Where the air was still, temperatures ranged from 64 to 70.5 F. Table 1 lists bat species which might be found in this area.

Evidence of other animals was present in the mines. Most contained scat and nests of the desert woodrat (Neotoma lepida), and in two cases a rat was observed. Droppings of the deer mouse (Peromyscus maniculatus) were also scattered throughout the mine. Several mines contained scat and footprints of the ringtail cat (Bassariscus astutus), and prints of a bobcat (Lynx rufus) were seen in two adits. A dead golden eagle (Aquila chrysaetos) was appropriately found in the Eagle adit at the bottom of a shaft leading to the surface. In this same mine complex, a mummified desert tortoise (Xerobates agassizzi) was found at the bottom of a shute. Domestic pigeons (Columba livia) were found roosting in the diggings with vertical cuts to the surface.

The mist nets over the Soledad Extension on June 23 did not catch any bats. The evening of April 2, a male western pipistrelle (Pipistrellus hesperus) was captured in the mist net by the water tank. Many other pipistrelles as well as two pallid bats (Antrozous pallidus) were seen that evening, and their ultasonic signals detected. As soon as the winds arose, bat activity ceased. This was also the case on the evening of June 24.

TABLE I

1. Order Chiroptera	Bats
Family Molossidae	Free-tailed bats
Tadarida brasiliensis	Mexican free-tailed bat
Eumops perotis	California mastiff bat
Family Vespertilionidae	Plain-nosed bats
_Antrozous pallidus_*	Pallid bat
Plecotus townsendii	Townsend's big-eared bat
_Pipistrellus hesperus_*	Western pipistrelle or canyon bat
Eptesicus fuscus	Big brown bat
Myotis californicus	California Myotis

DISCUSSION

Although appropriate habitat exists for bats in the Soledad Mountain mines, none were encountered during this survey. This is the most time that I have spent underground without seeing a bat or guano. Other wildlife, principally woodrats, deer mice, and ringtail cats are resident. The temperatures within the mines are appropriate for winter roosts of <u>Plecotus</u>, although their distinctive guano was not seen. Few bats were observed flying around Soledad Mountain at night or heard with the bat detector.

High winds are a constant evening feature of Mojave. Small bats have difficulty flying in strong winds. Flying insects, upon which bats feed, are also conspicuously low in numbers, especially on windy evenings. These may be the reasons for the low numbers of bats in an area which otherwise would appear to provide favorable habitat.

Attachment C

JOHN F. ABEL, JR.
MINING ENGINEER

310 LOOKOUT VIEW COURT
GOLDEN, CO 80401
303-279-4901
FAX 278-8163

November 8, 1995

SOLEDAD MOUNTAIN PROJECT, SLOPE STABILITY ANALYSIS

by

John F. Abel, Jr.
Colorado P. E. 5642

for
Golden Queen Mining Co., Inc.
Soledad Mountain
P.O. Box 878
Rosamond, California 93560-0878

Reviewed by:
The Glasgow Engineering Group, Inc.

REGISTERED PROFESSIONAL ENGINEER
DON ANDREW PROVER
Sept 6, 1996
No. C-32075
Exp. 8-23-97
CIVIL
STATE OF CALIFORNIA

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EXECUTIVE SUMMARY

The 55° design slope angles for the Ultimate Pit Boundary on Soledad Mountain and the pitwalls for the interconnected pits inside the Ultimate Pit Boundary of the planned open pit mine on Soledad Mountain should be stable. In fact, the pitwall slope angles could be safely increased to 63.4 degrees (two vertical to one horizontal) without hazarding the stability of the final planned pit slopes. The factors of safety are for dry slope conditions, assuming that the old mine workings have released any pore pressure that could otherwise be present along adversely oriented fracture(s). Table 1 presents the limiting equilibrium factors of safety for the critically oriented planned pit highwalls. Figure 1 presents the Ultimate Pit Boundary and the location of smaller interconnected pits inside the Ultimate Pit Boundary. The stability of the planned 55° pit slopes is primarily the result of the generally steep dip of most of the natural fractures (joints) present in the various rock types exposed on Soledad Mountain. The favorable steep dip of the natural fracture orientations more than makes up for the one low (Rhyolite Porphyry) and two medium (Upper Pyroclastic Unit and Middle Pyroclastic Unit) strength rock types. It is the favorable natural fracture orientations present that accounts for the resistance to erosion that has preserved Soledad Mountain surrounded by adjacent flat semi-desert. Figure 2 presents the planned ultimate pitwalls, rock type distribution and structural domains identified along, around and within the Ultimate Pit Boundary. Figure 3 indicates the critical maximum-height pitwall slopes along, adjacent to and inside the Ultimate Pit Boundary.

Five rock types are present in the area of the planned pit. All the rock types are Tertiary in age. These rock units are from oldest to youngest the Quartz Latite Porphyry (Tql), the Middle Pyroclastic Unit (Tmp), the Aphanitic Rhyolite (Tr), the Upper Pyroclastic Unit (Tup) and the Rhyolite Porphyry (Trp). The volcanic nature of the Tql, Tr and Trp rock types is indicated by the flow-banding present and by the pyroclastic nature of the Tmp and Tup rock types. Locally the rocks at the mine site are covered by thin alluvial and talus deposits of Quaternary age.

The strengths necessary for analyzing the planned pit slopes in the five rock units was measured by a program of compression and direct shear testing. The detailed test results are presented in Appendix A. The test results demonstrate that the shear strength of natural fractures present of these rock types is consistently more than two orders of magnitude lower than the shear strength of the intact rock type. This can be seen by inspection of Table 2, a tabulation of the measured rock type strengths. Samples were collected at each detail line fracture mapping site. The strength

Table 1. Relative stability of planned 55° slopes.

Side of Pit	Location Information Structural Domain	Rock Type	Slope Ident.	Slope Height (ft)	Slope Angle (°)	Factor of Safety @ Confidence Level 80%	98%	99.9%
East	11	Tup	1	800	63.4°	Failure paths >		
					55°	possible slopes		
	12	Tmp	2	850	63.4°	1.97	1.87	1.87
					55°	3.89	3.80	3.79
	1	Tql	3	400	63.4°	2.69	2.56	2.56
					55°	2.69	2.57	2.57
North	2	Tr	4	550	63.4°	2.53	2.42	2.42
					55°	2.91	2.80	2.80
Northwest	5	Tmp	10	240	63.4°	5.37	5.28	5.27
					55°	12.19	12.09	12.09
			11	180	63.4°	No failure path		
					55°			
			12	220	63.4°	7.30	7.02	7.01
					55°	9.05	8.78	8.77
West	8	Trp	9	650	63.4°	Failure paths >		
					55°	possible slopes		
South			8	1100	63.4°	Failure paths <		
					55°	residual friction		
	10	Trp	7	780	63.4°	Failure paths <		
					55°	residual friction		
			6	700	63.4°	No failure path		
					55°			
	11	Trp	5	600	63.4°	Failure paths >		
					55°	possible slopes		

Table 2. Strength of rock types.

Rock Type (Detail Lines)	Unconfined Compression Strength (psi)	Angle of Internal Friction	Intact Rock Cohesion (psi)	Residual Angle of Surface Friction	Residual Surface Cohesion (psi)
Tr (A&H)	13970	60.6°	1835	29.1°	3.58
Tup (B&C)	12940	54.8°	2054	23.5°	2.59
Tr (D)	19960	64.5°	2261	29.2°	2.95
Tmp (E&F)	15950	56.5°	2397	30.0°	2.00
Trp (G)	6250	52.0°	1075	30.5°	1.32
Tql (I)	21340	55.3°	3329	31.3°	0.00

Figure 1. Interconnected planned pits within Ultimate Pit Boundary.

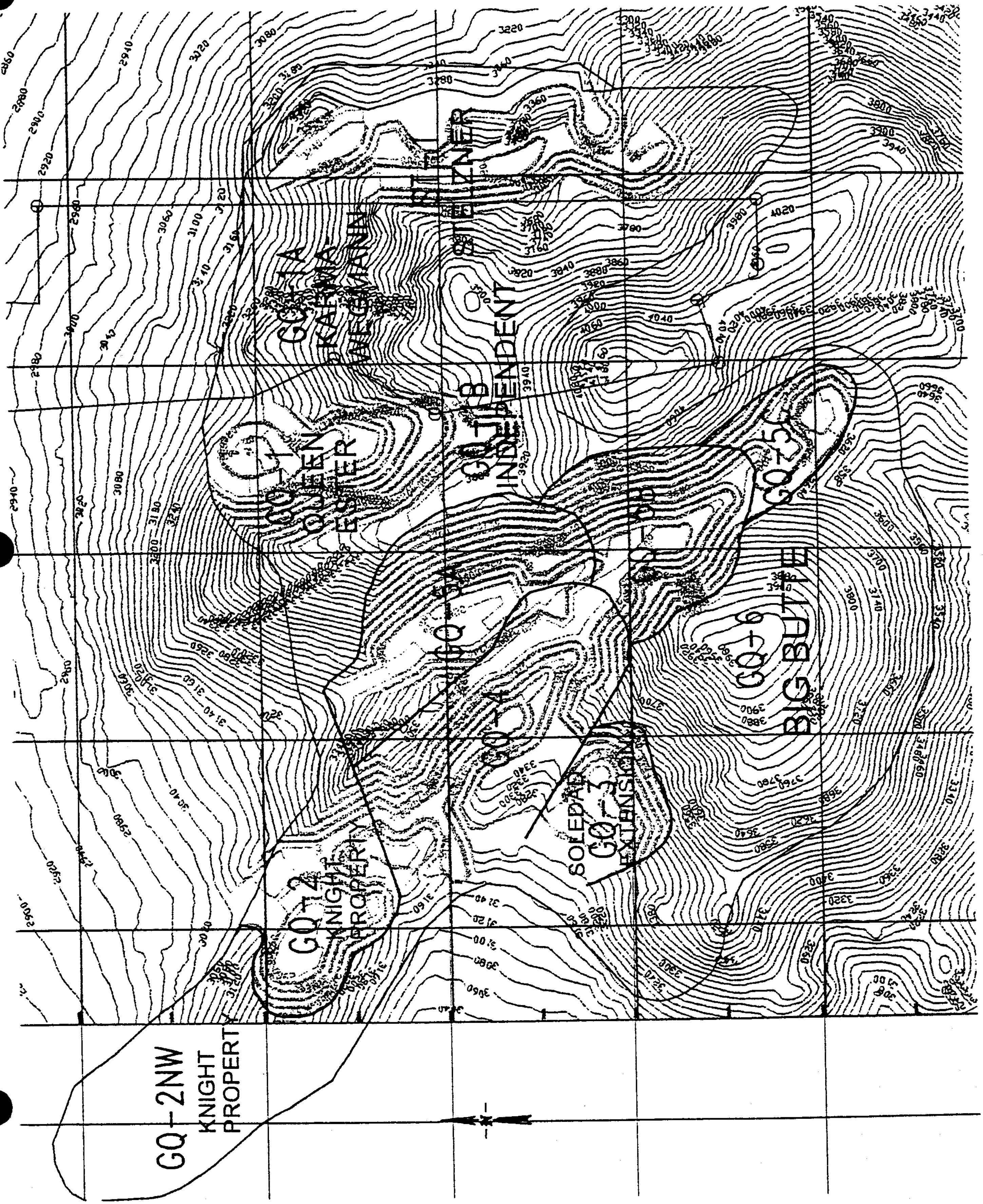


Figure 2. Structural domains for Soledad Mountain Project.

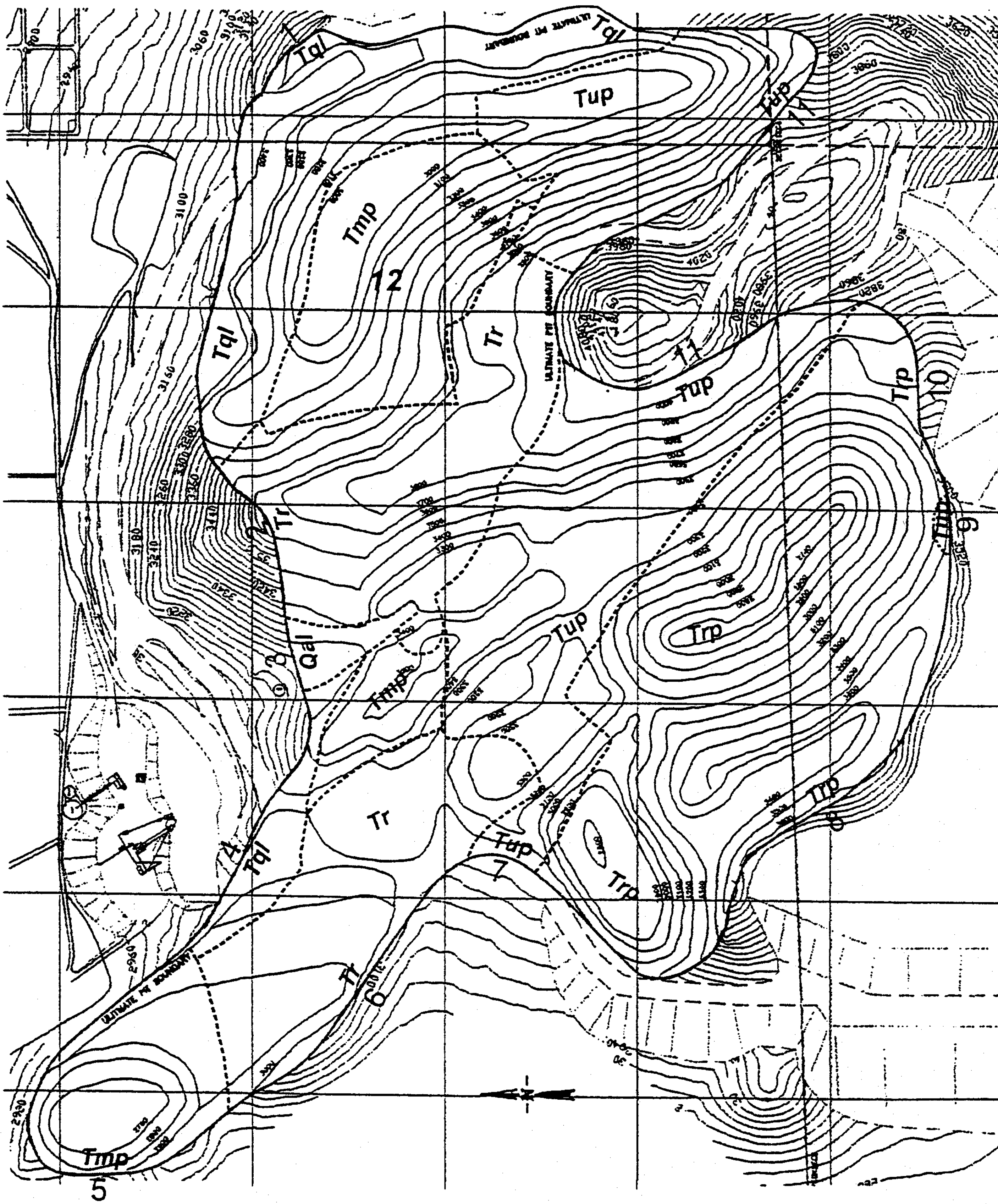
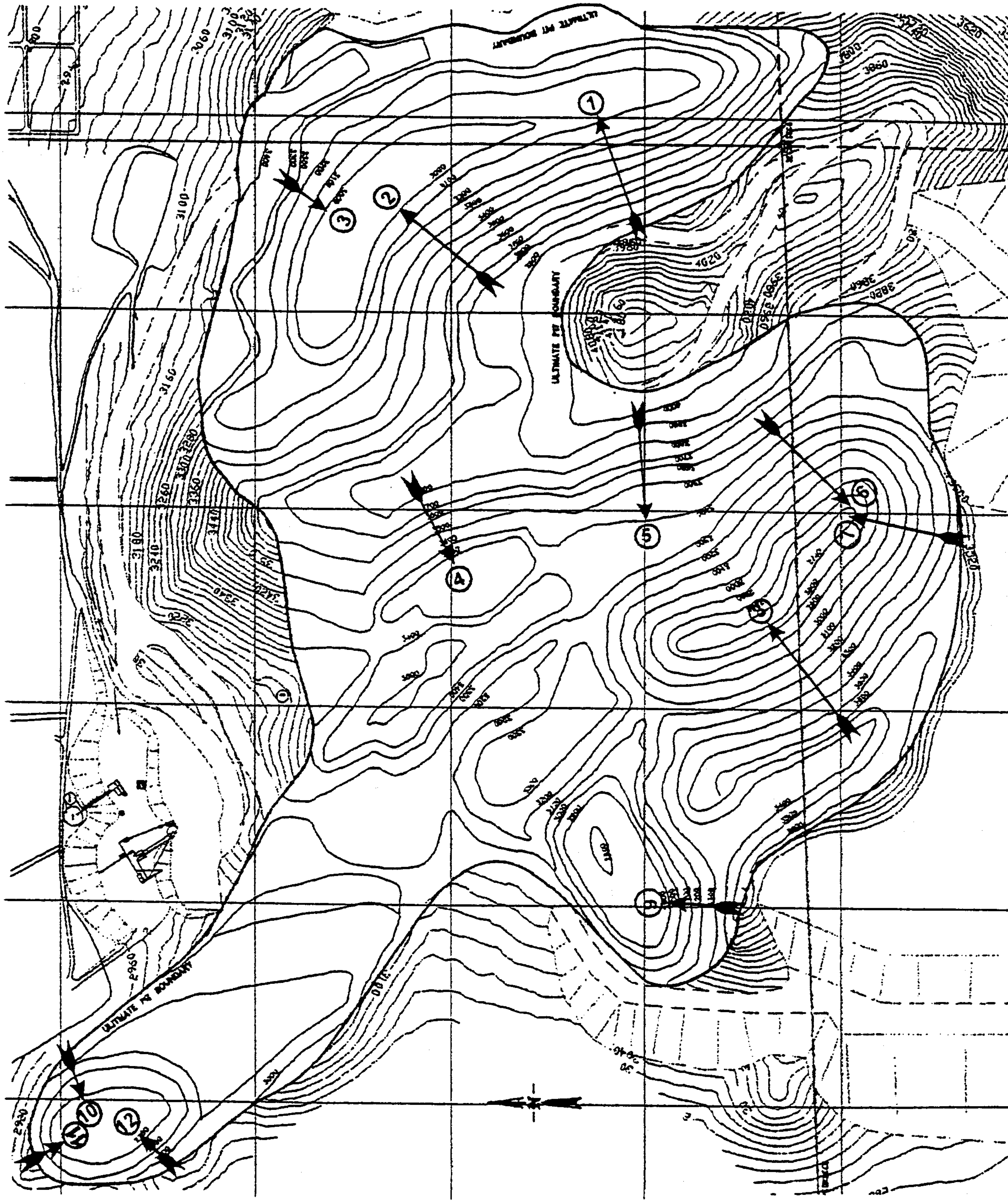


Figure 3. Critical, worst-case highwalls for Soledad Mountain Project.



of similar rock types were combined except for the Aphanitic Rhyolite. The strength of the Aphanitic Rhyolite is sufficiently variable that the test results were kept separate for slope stability evaluation.

The natural fractures provide the potential failure paths for pitwall slope failure. The natural fracture patterns present in each of the various rock types were measured by taking nine detail line samples of the natural fracturing present at rock type outcrops. A total of 824 natural fractures (joints) were recorded in the detail line mapping program. The purpose of the fracture mapping of the natural rock weaknesses was to provide the preferential orientations (strikes and dips), spacing, continuity (trace length) and irregularity of the fracture weaknesses present. The fracture data, therefore, provided the information essential to the determination of the presence or absence of any potentially adverse fracture weakness with respect to planned pitwall orientations. The fracture spacing and trace length measurements provided the data necessary to conservatively estimate the proportion of intact and broken rock along adversely oriented fractures. The orientations of statistically significant fracture sets were determined from Schmidt equal-area plots. The irregularity angles along potential failure paths along adversely oriented fractures were measured from the Schmidt diagrams.

Two modes of potential failure were analyzed, plane shear down a single joint set dipping out of a highwall, i.e. with dips flatter than the slope angle but steeper than the measured residual friction angle, and wedge shear for the intersection of two joint sets the plunges out of a pit highwall at an angle less than the measured friction angle.

The factor of safety calculations indicate that all planned Soledad Mountain Project slopes will be stabile, the lowest factor of safety in the case of the critical slope in Domain 1 is for plane shear failure; the critical slope in Domain 12 is wedge shear; the critical slope in Domain 2 is wedge shear; two of the critical slopes in Domain 5 are wedge shear. All other slopes either will not daylight a plane or wedge shear geometry or the daylighted plane or wedge shear geometry is flatter than the residual angle of surface friction for the rock type involved.

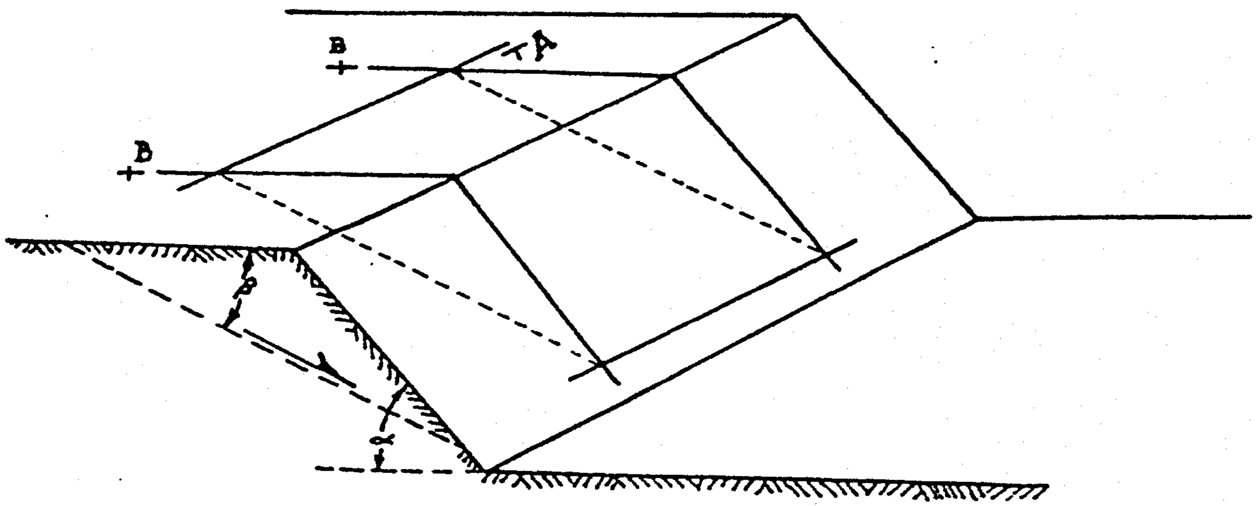
INTRODUCTION

The following analysis of planned 55° pitwall slope angles was undertaken to evaluate their stability. The analysis involved compositing the physical properties of the rocks involved and the structural geology and fracture data provided to calculate the factors of safety for the planned slope angles and potentially steeper 63.4° maximum possible slope angles. The limiting equilibrium method was used to calculate the factors of safety between the potential driving thrust tending to produce slope failure of the block of rock above a daylighted joint set or joint wedge and the resisting force along the worst-case position for the potential sliding block. Figure 4 shows the plane shear and wedge failure modes analyzed.

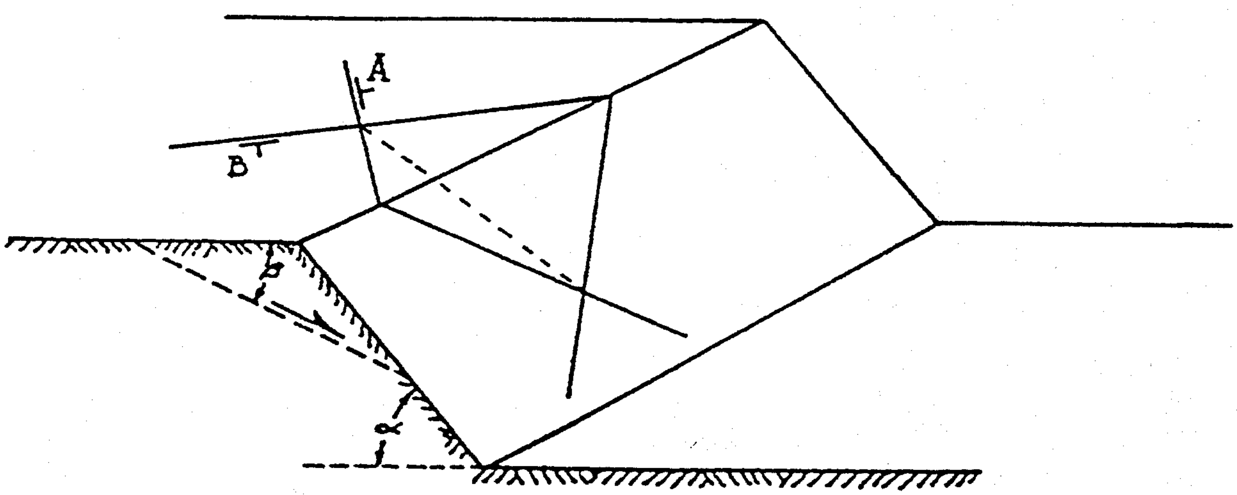
Slope failure by sliding (shear) is resisted by friction and cohesion across joints plus the friction and cohesion through intact rock bridges between joints. Additional frictional resistance to sliding is provided by the irregularities on the potential sliding surface. The angle of surface friction measured for planar machined surfaces was increased to account for the difference in dip between joints that define the average dip of the failure surface. Patton (1966) measured the variable inclination of actual limestone failure surface after the rock above the failure surface had slid, as shown on Figure 5. The idealized irregularity angle approximation used to include the resisting affect of dip irregularity measured by the detail line fracture mapping is shown on Figure 6. The irregularity angles were taken from the Schmidt equal-area projections of the detail line data. Slope stability was analyzed for the worst-case, maximum height locations within structural domains and for the potential slope failure through the toe of the slope.

The size of rock bridges between individual joints of a single joint set potentially subject to plane shear failure (sliding), or two joints in the case of an adverse intersection of two joint sets potentially subject to wedge shear failure (sliding), out of the planned pitwalls was estimated from the minimum joint spacing and maximum trace length measured during the detail line fracture mapping. Intact rock bridges provide the greatest frictional and cohesive resistance to sliding because of their much greater shear strength. The shear strength of intact rock is more than two orders of magnitude greater than the resistance provided by the residual shear strength of natural joints. The proportion of intact rock along potentially adverse natural fracture orientations was conservatively assumed to be one-dimensional, i.e. only in the dip direction as shown on Figure 7. Calculations were made for two-dimensional intact rock distribution but were not used in the evaluation of pitwall stability. The strength of the intact rock bridges was conservatively degraded to account for the decrease in strength associated with increasing size of the rock bridges in

Figure 4. Potential plane and wedge shear failure modes.



Isometric sketch of failure geometry for daylighted plane shear fracture dipping into pit, showing end release fractures.



Isometric sketch of failure geometry for daylighted wedge shear condition, intersection of two fractures plunging into pit.

Figure 5. Irregularity angles measured on failed limestone slope (Patton, 1966).

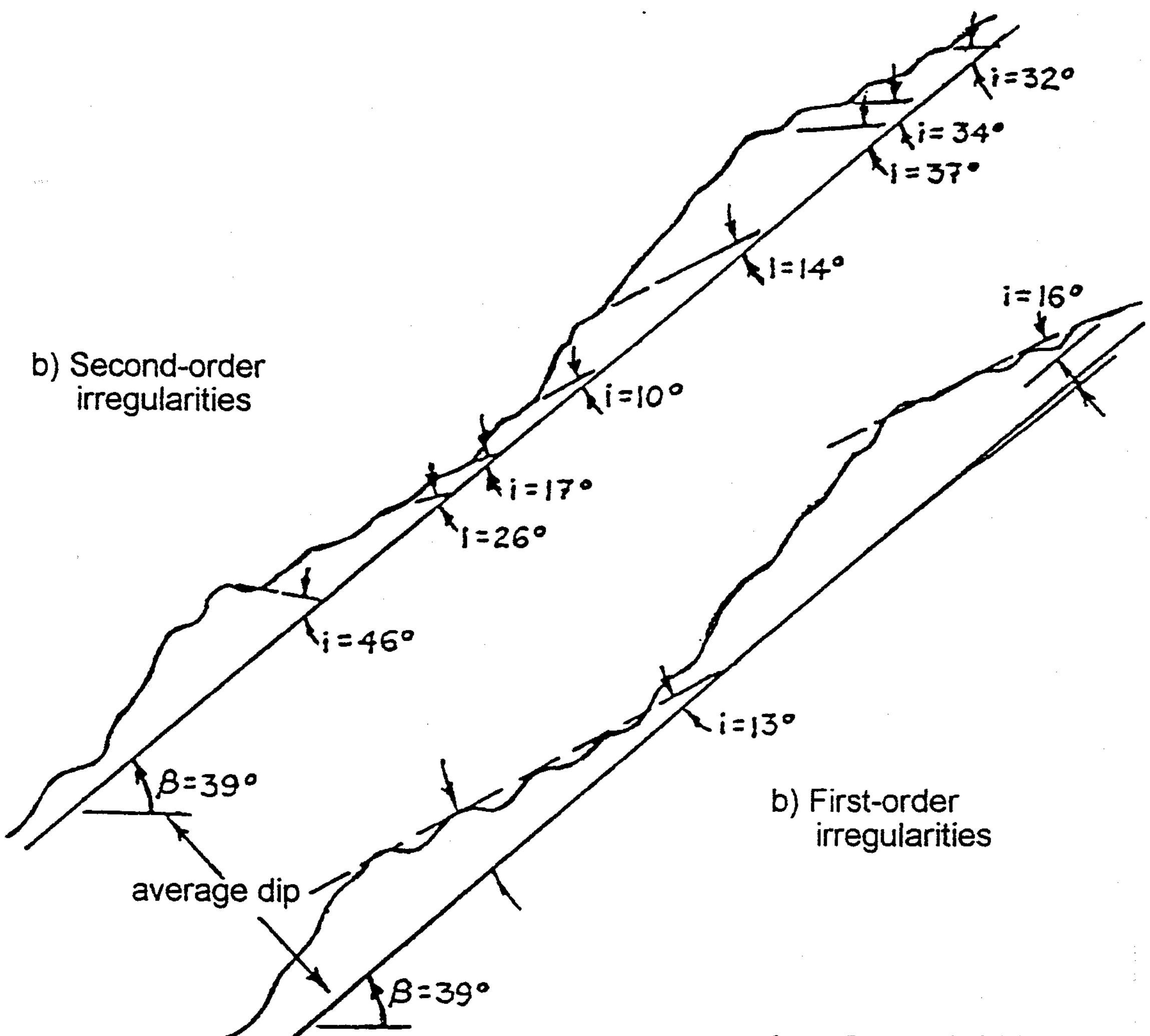


Figure 6. Idealized irregularity resistance to slope failure.

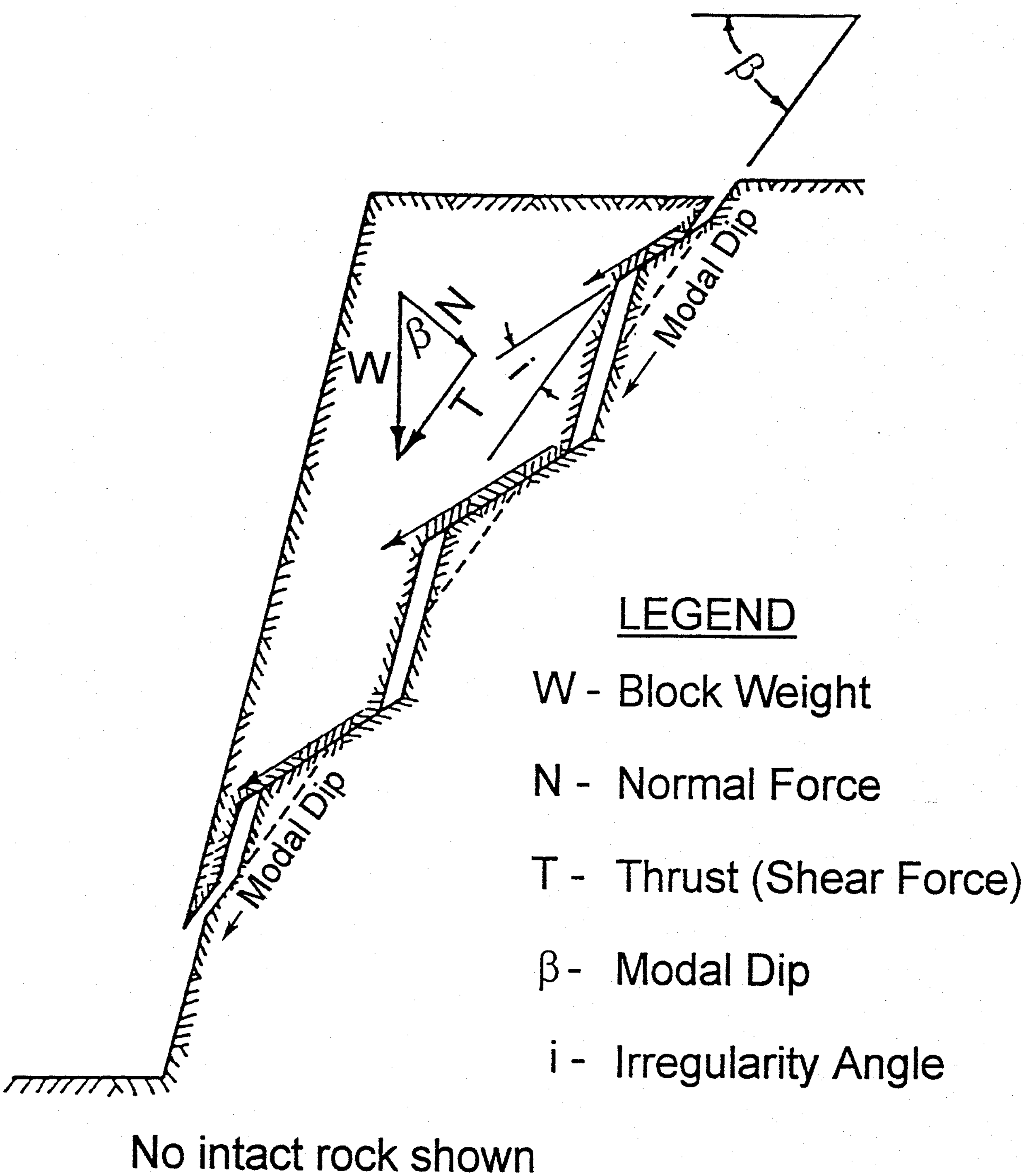
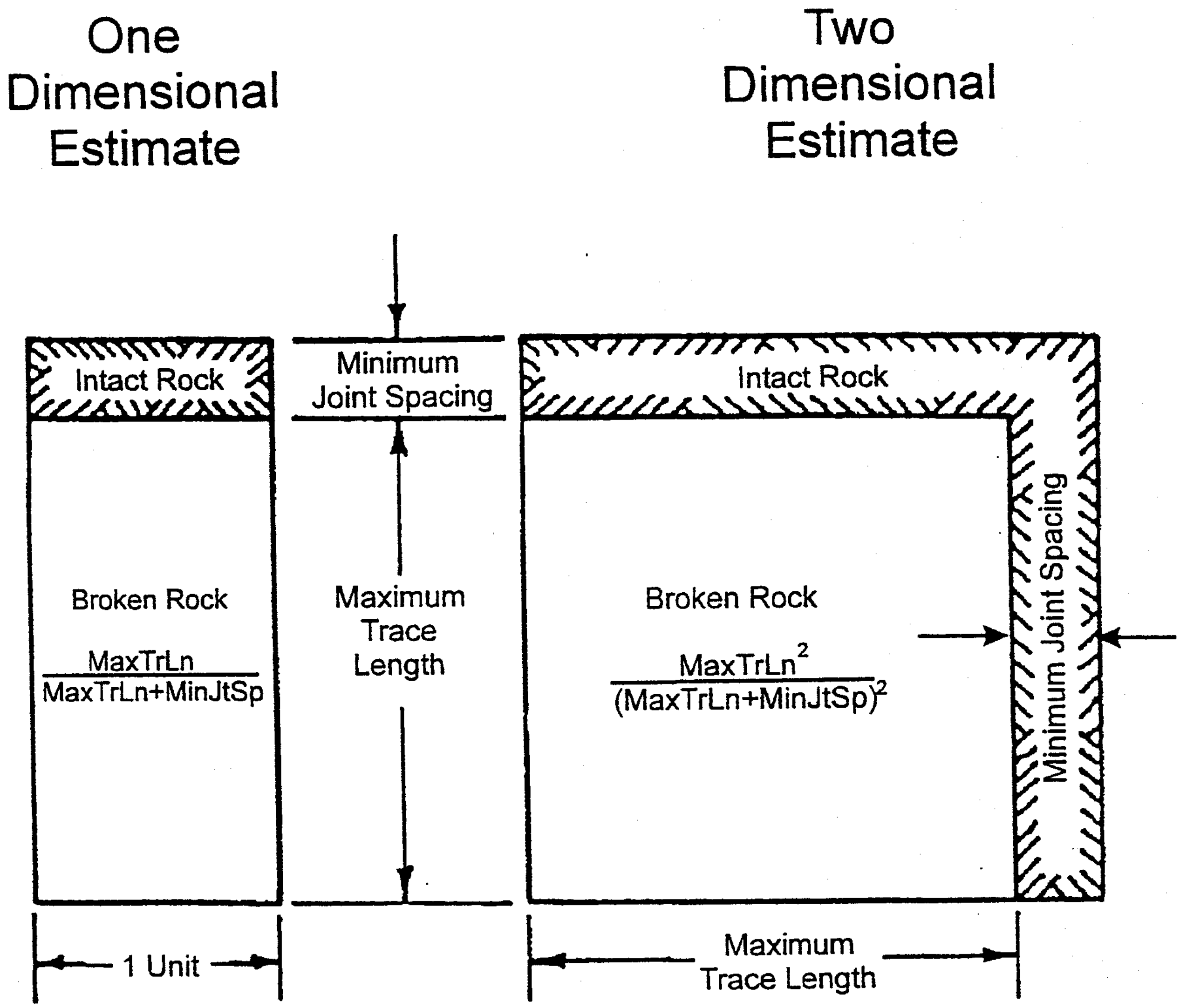


Figure 7. One and two-dimensional intact rock bridge simulation.



relation to the 2-in. samples tested. The method employed was based on the coal strength/size data provided by Bieniawski (1968). The statistical best-fit power curve equation for that data was used to relate the measured strength of the 2-in. test samples to the size of rock bridges estimated from the minimum joint spacing. The equation is:

$$\text{Strength (psi)} = 7330(L)^{-0.658}$$

The term "L" is the diameter of the compression test specimen or the length of the rock bridge, estimated from the minimum measured joint spacing extracted from the tabulated detail line data for an adverse joint set for a critical pitwall within a structural domain.

Calculations were also made for fully saturated slopes, as shown on Figure 8. The uplift force (U) provided by hydraulic pressure (u_{max}) distributed along a potential joint controlled failure surface (L_j) reduces the total normal force (N) acting across the adverse failure surface. The frictional resistance (T_F) to sliding is directly related to the total normal force by the following equations:

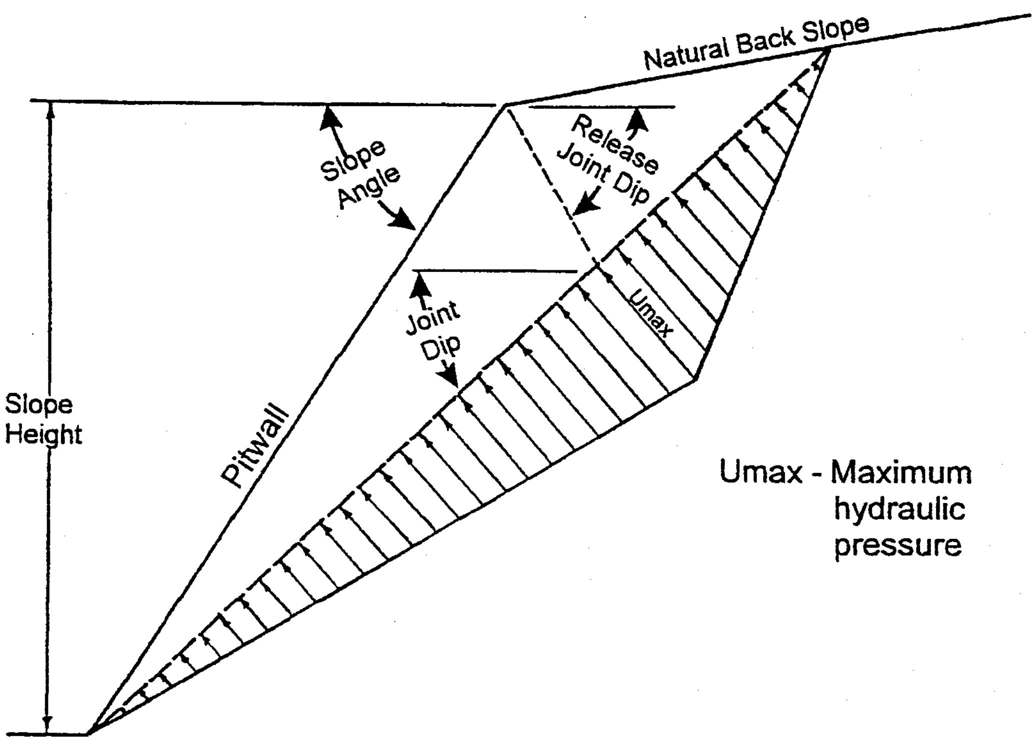
$$T = (N - U)\mathrm{Tan}(\Phi - i) \qquad U = \left(\frac{u_{max}}{2}\right)L_j$$

Calculations were made for completely dry and fully saturated critical slope locations and geologic conditions. When inspected the underground workings were found to be generally dry, or at most in some locations damp. The topographic high represented by Soledad Mountain would tend to drain toward the alluvial plains surrounding the mountain. The overall evaluation of slope stability assumed that any hydraulic pressure that may have been present prior to previous underground mining was released by that mining. The stability of the critical highwalls has been increased by the drainage of water from the mountain and the magnitude of that increase is indicated on the factor of safety tables for the individual critical slopes.

GEOLOGIC INPUT DATA AND ANALYSIS

The slope stability study for the Soledad Mountain Project started with the preparation of a geologic structure and rock type map of the area by Golden Queen's geologic staff. This map provided the basis for initial selection of structural domains for the mine area. A structural domain is a three-dimensional volume of rock within which the fracture fabric is consistent. A structural domain may, or may not, include more than one rock type. Similarly, a structural domain may, or may not, change across a fault. Structural domains were selected on the basis of rock types

Figure 8. Assumed distribution of hydraulic uplift pressure along an adverse joint set in a fully saturated slope.



and major faults. Based on this map and on a field inspection, locations were selected for nine detail lines of fracture mapping for the five rock types. The locations of the nine detail lines are shown on Figure 9. Two detail lines of fracture orientation data were collected in the Aphanitic Rhyolite (Tr), the Upper Pyroclastic Unit (Tup) and the Middle Pyroclastic Unit (Tmp). The detail line fracture field data for the individual detail lines is presented as Appendix C to this report. Figure 2 presented the twelve structural domain locations finally selected based on similarities and differences between the statistically significant fracture orientations developed after the fracture data was plotted as Schmidt equal-area projections. The Schmidt plots for the nine individual lines are included as Appendix B to this report.

Structural Domain 3, on Figure 2, is in Quaternary Alluvium and Talus (Qal) and, therefore, is not actually a structural domain because it not a rock and contains no fractures. The Qal unit includes no highwall, entering the Ultimate Pit Boundary horizontally from the north facing side of Soledad Mountain. It was listed to provide a means to identify a difference in material along the Ultimate Pit Boundary. Structural Domains 11, 7 and 9 are really only one structural domain, all in the same Upper Pyroclastic (Tup) rock type, intersected along the sinuous Ultimate Pit Boundary. Structural Domains 8 and 10 are, also, only one structural domain, all in the same Rhyolite Porphyry (Trp) rock type, intersected along the sinuous Ultimate Pit Boundary. Structural Domains 5 and 12 are, also, only one structural domain, all in the same Middle Pyroclastic (Tmp) rock type, intersected along the sinuous Ultimate Pit Boundary and inside the pit at a critical high slope location and pitwall orientation. On the other hand, the fracture orientations mapped in Structural Domain 2 and Structural Domain 6, both in the Aphanitic Rhyolite (Tr), were so different that they were treated as separate structural domains.

The statistically significant fracture sets for the strike and dip data from each detail line and from each rock type are presented in Table 3. Statistical significance was determined at three level of confidence; 80%, 98% and 99.9%. These confidence levels were based on the probability of obtaining the listed confidence levels when selecting strikes and dips from a uniformly distributed random number table, i.e. uniform probability for all possible strikes and dips. Figure 10 presents the percentage of poles per 1% area necessary for the statistical confidence level desired and for the total number of poles in the Schmidt equal-area plot. The result is the percentage of poles needed within a 1% area of the Schmidt equal-area net to provide the selected level of confidence that the fracture set is real and not the result of chance.

Figure 9. Location of detail line fracture mapping locations in relation to planned Ultimate Pit.

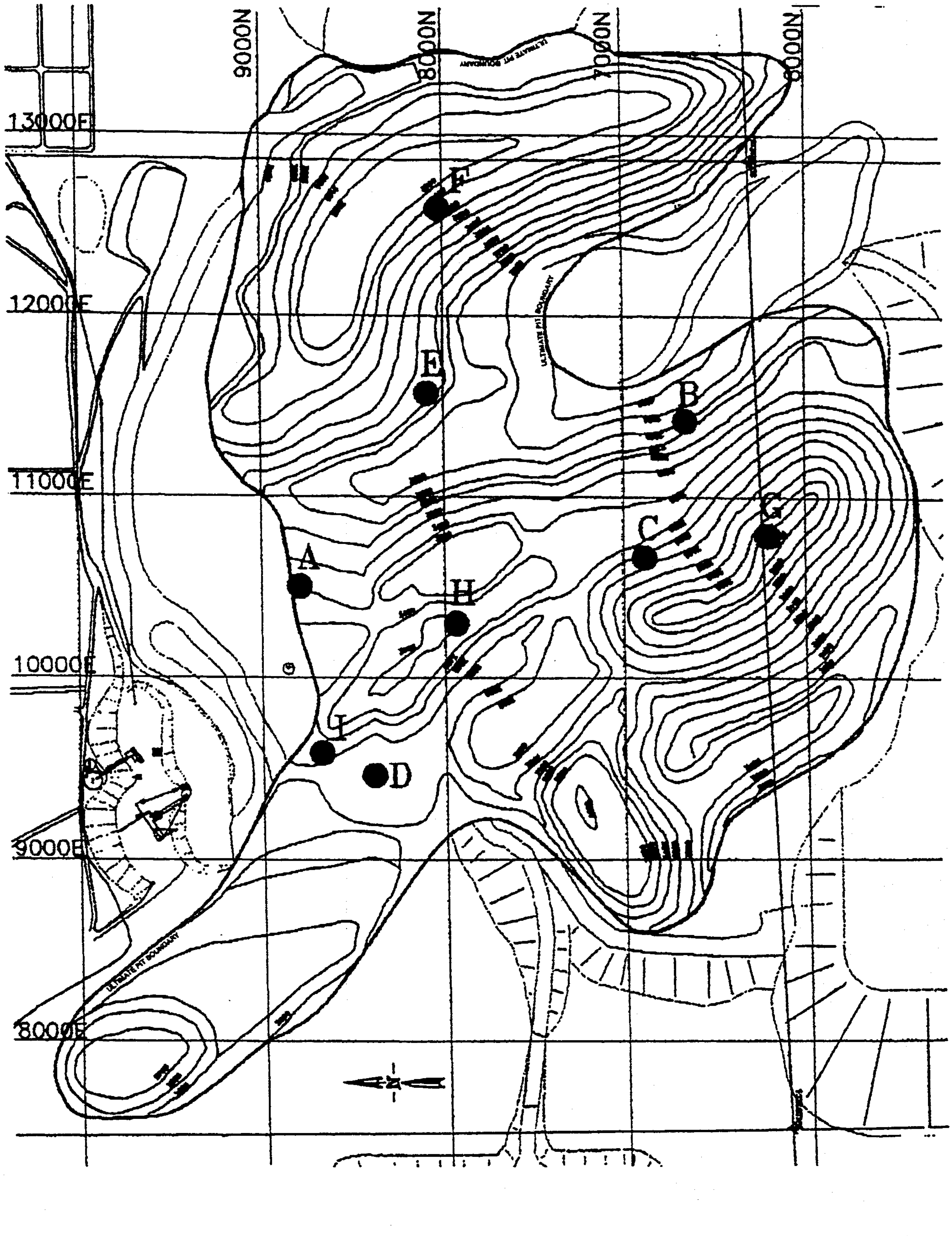


Table 3. Significant detail line fracture sets

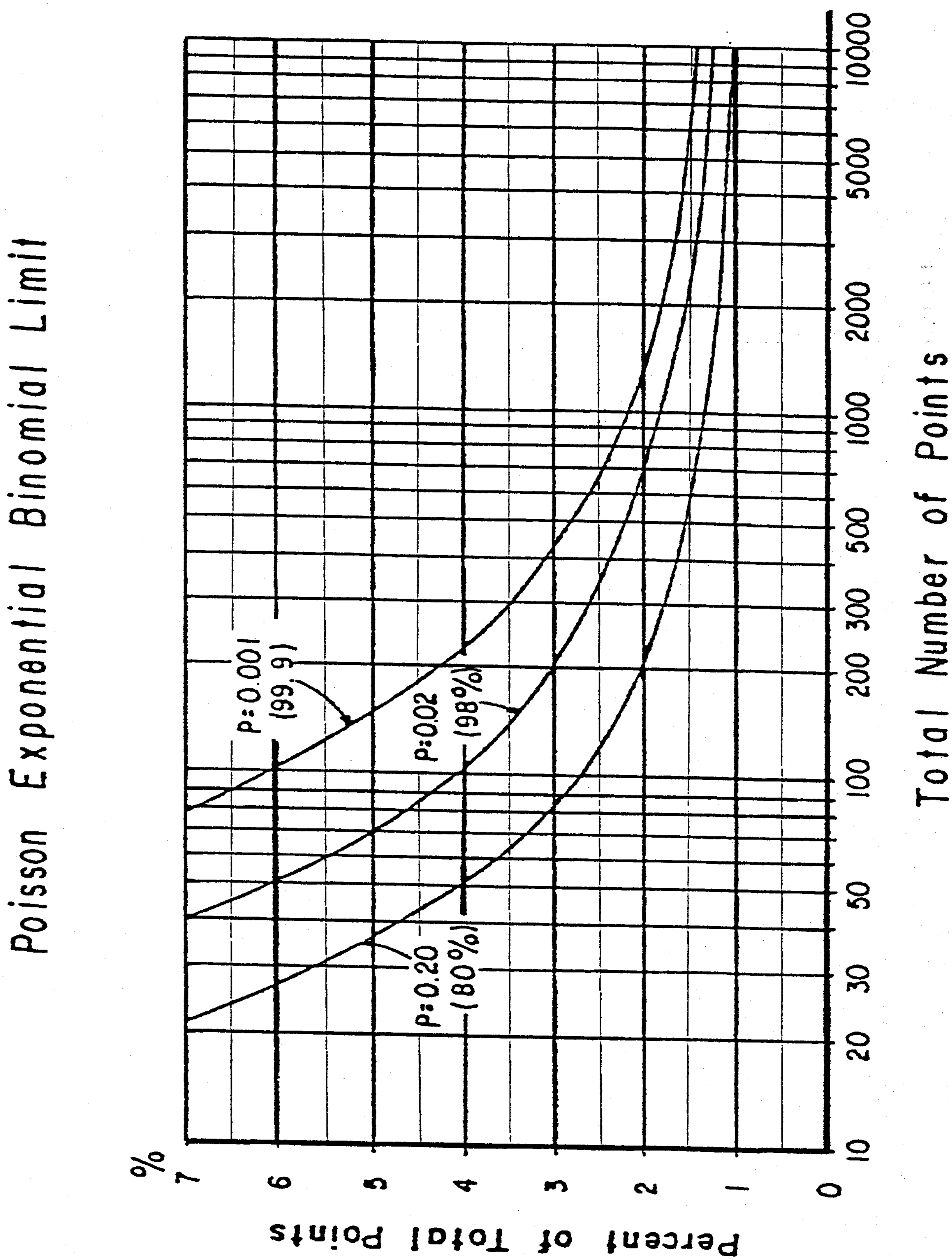
Measurement Location and Description	Significant Joint Sets @ Confidence Level						No. of Poles
	>99.9%		98%		80%		
	Strike	Dip	Strike	Dip	Strike	Dip	
DETAIL LINE "A" Tr - Aphanitic rhyolite, banded	N20E N15W N60E	78NW 65NE 83SE	N53W N42E N83E	69NE 66SE 75SE	**N80W** **N03E**	**38SW** **53NW**	100
DETAIL LINE "B" Tup - Upper pyroclastic unit	N31W N52E N68E	83SW 84SE 84SE	N52E N01E	69NW 88SE			38
DETAIL LINE "C" Tup - Upper pyroclastic unit	N32W N13W	75NE 74NE	N37E N68E	84NW 75NW			99
DETAIL LINE "D" Tr - Aphanitic rhyolite, banded	**N30W** N73E N14W	**32SW** 86NW 81NE	**N51E** N04E N55E N57E	**62NW** 88SE 84SE 70SE			93
DETAIL LINE "E" Tmp - Middle pyroclastic unit	N70E	84NW	N18E N47E N83W N30W N13W **N11W**	82NW 80NW 74NE 81NE 78NE **48NE**	**N54W** N18E N54E N68E	**38SW** 80SE 82SE 75SE	97
DETAIL LINE "F" Tmp - Middle pyroclastic unit	N68W N18E	84SW 85NW	**N44W** N32E N10W	**43SW** 85NW 77NE	N53E N71E	70NW 72NW	97
DETAIL LINE "G" Trp - Rhyolite porphyry, banded	**N38E** N77E	**40SE** 82SE	N52E **N72E** N09W **N11E**	87NW **50NW** 15NE **27NE**	N75W N15E N41E	82NE 68SE 64SE	100
DETAIL LINE "H" Tr - Aphanitic rhyolite, banded	N10W N78E N11W	84SW 80NW 83NE	N87W N62W N57W	83SW 18SW 83NE			100

Table 3 (Continued). Significant detail line fracture sets

Measurement Location and Description	Significant Joint Sets @ Confidence Level >99.9% Strike	Dip	98% Strike	Dip	80% Strike	Dip	No. of Poles
DETAIL LINE "I" Tql - Quartz latite porphyry, massive banded	N48E	85NW	N18W	76SW	N48W	70SW	100
			N02W	80SW	**N20W**	**22SW**	
			N60W	82NE	N84E	90	
					N22W	**55NE**	
					N17W	78NE	
					N07W	**38NE**	
					N06E	**56SE**	
DETAIL LINES "A"+"H" Tr - Aphanitic rhyolite, banded	N12W	83SW	N19E	78NW	N62W	18SW	200
	N12W	81NE	N77E	78NW	N45E	70NW	
			N73W	82NE	N54W	18NE	
			N57W	78NE			
			N39E	66SE			
			N63E	82SE			
DETAIL LINES "B"+"C" Tup - Upper pyroclastic unit	N32W	75NE	N49E	84NW			137
			N68E	80NW			
			N53E	88SE			
DETAIL LINES "E"+"F" Tmp - Middle pyroclastic unit	N67W	85SW	N82W	73NE	**N50W**	**37SW**	194
	N17E	83NW			N47W	83SW	
	N55E	82NW			**N13W**	**51NE**	
	N72E	80NW					
	N12W	76NE					

Bold face joint set orientations have dips potentially hazardous to the stability of overall slope angles steeper than their dips and whose slope direction is parallel to the the joint set strike.

Figure 10. Percentage of fracture orientation poles needed for confidence that a statistically significant fracture set is present.

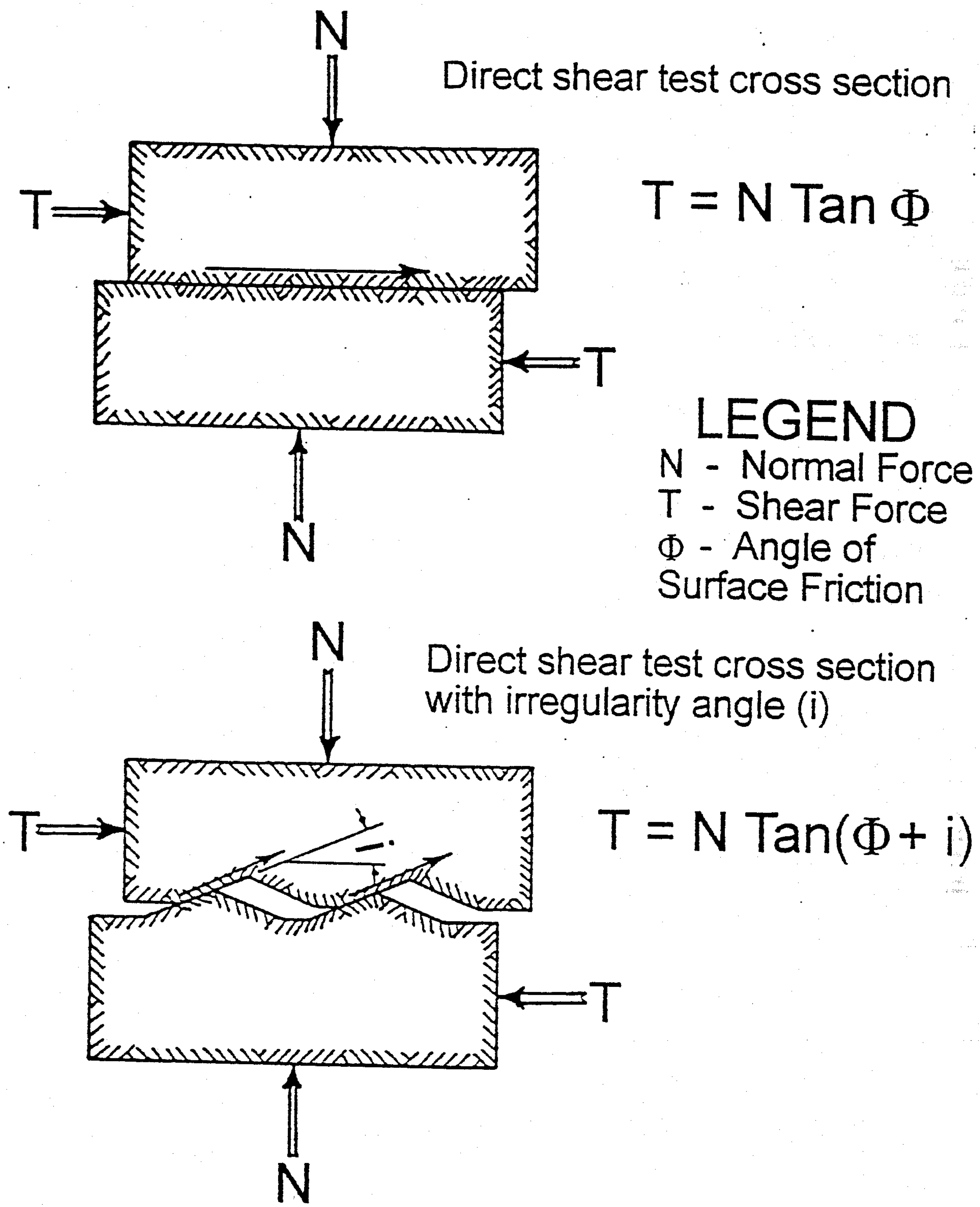


PHYSICAL TESTING PROGRAM

The study included a physical testing program. The physical testing program for the Soledad Mountain Project consisted of uniaxial and triaxial compression testing and direct shear testing of each of the five rock types. Blocks of rock were collected at each detail line location and shipped the Advanced Terra Testing, Inc. in Lakewood, CO. There samples were cored from these blocks of rock. Test specimens, nominally 2 inches in diameter by 4 inches in length, were cut from the sample cores, surface ground and tested. The uniaxial compression tests were performed in accordance with the American Society for Testing and Materials (ASTM) Standard D 2938 and the triaxial compression testing in accordance with ASTM Standard D 2664. The direct shear tests were performed in accordance with an ASTM soil test, ASTM Standard D 3080, except that two pieces of core, approximately 2 inches in diameter and 1 inch thick were cut and surface ground on one side, were utilized for each set of three normal load tests instead of a single soil sample. The ground surfaces were placed against each other in the shear machine, immersed in water, loaded normal to the ground surface contact and the shear force necessary to produce sliding measured. Three normal loads were applied, calculated to result in 50 psi, 100 psi and 200 psi normal stress on the ground specimen surfaces. The upper cross section on Figure 11 indicates the plane surface subjected to shear stress. The angle of surface friction (Tan Φ) is calculated from the three different normal forces (N) applied and the shear force (T) measured each time when the rock specimens slipped.

In addition to the shear properties of intact and broken rock, the density of each compression specimen was measured as part of the physical testing program. The individual detail line and rock type densities are presented in Appendix A.

Figure 11. Direct shear test cross section and effect of surface irregularities on frictional shear strength.



LIMITING EQUILIBRIUM SLOPE STABILITY ANALYSIS

Daylighted fracture, or joint, sets are potentially subject to plane shear sliding failure whenever the fracture is flatter than the slope angle and steeper than the angle of surface friction of the rock type involved. The wedge formed by two fracture sets is subject to sliding failure when the plunge of their line of intersection plunges flatter than the slope angle, is daylighted, and steeper than the angle of surface friction of the rock type involved. Wedge failures are less common than plane shear failures, possibly because there is more area to shear across each unit of the highwall face. Only the critical pitwall identified on Figure 3 by the number 3 (Structural Domain 1, rock type Tql) is primarily at risk because of the potential of plane shear sliding along a daylighted fracture. The critical slope highwall identified by number 2 (Structural Domain 12, rock type Tmp) is at risk for plane shear failure. However, a potential wedge shear failure present in the same critical slope has a lower factor of safety. Wedge shear provides the only potential failure mode for the critical highwalls identified by the numbers 4 (Structural Domain 2, rock type Tr), 10 and 12 (Structural Domain 5, rock type Tmp).

PLANE SHEAR SLOPE ANALYSIS

Table 3 lists in bold face type all fracture sets present in the fracture orientation data mapped in each detail line that are potentially subject to plane shear failure. These potentially hazardous fracture sets are potentially subject to sliding failure out of either the planned 55° overall slope angles or the maximum possible 63.4° overall slope angles in the pitwalls along the Ultimate Pit Boundary and inside the pit boundary. The first step in the plane shear slope stability analysis was the calculation of the true minimum spacing (TMS) of the potentially adverse plane shear fracture delineated from inspection of the significant fracture sets listed in Table 3. The minimum apparent spacing (MAS) along the frequently plunging detail line must be corrected for the inclination of the line, for the difference in direction between the direction of the detail line and the mean strike of the potentially adverse fracture set and for the mean dip of the potentially adverse fracture set. Table 4 presents the results of this calculation for each potentially adverse fracture set plus a sample calculation for the N54°W striking, 38°SW dipping joint set.

The next step in the plane shear slope stability analysis was the measurement of the irregularity angles for each potentially adverse fracture set on the Schmidt equal-area projections in Appendix B. The measured irregularity angles are also presented in Table 4.

Table 4. Daylighted joint properties for potential plane shear failures along Ultimate Pit Boundary.

Detail Line and Rock Type	Joint Strike	Joint Dip	Joint Spacing Minimum (ft)	Joint Trace Length Maximum (ft)	Irregularity Angles (degrees) Confidence Levels 80%	98%	99.9%
A - Tr	N80°W	38°SW	1.04	4	3	0	0
	N03°E	53°NW	0.06	3	4	0	0
B - Tup	No Adverse Joint Sets						
C - Tup	No Adverse Joint Sets						
D - Tr	N30°W	32°SW	0.02	6	9	5	3
	N51°E	62°NW	0.43	5	8	3	0
E - Tmp	N11°W	48°NE	0.77	8	6	2	0
	N54°W	38°SW	0.56	3	2	0	0
F - Tmp	N44°W	43°SW	0.12	4	8	3	0
G - Trp	N38°E	40°SE	0.09	8	14	9	7
	N72°E	50°NW	0.03	4	6	3	0
	N11°E	27°SE	0.44	8	8	4	0
H - Tr	Potentially adverse joint set flatter than residual friction						
I - Tql	N20°W	22°SW	1.85	2	4	0	0
	N22°W	55°NE	6.49	6	3	0	0
	N07°W	38°NE	0.59	2	5	0	0
	N06°E	56°SE	2.21	4	6	0	0
A+H-Tr	Potentially adverse joint sets flatter than residual friction						
B+C-Tup	No Adverse Joint Sets						
E+F Tmp	N50°W	37°SW	0.47	3	7	0	0
	N13°W	51°NE	0.71	6	2	0	0

Example calculation of minimum true spacing between joints of the potentially adverse Joint Set that strikes (S) N54°W and dips (D) 38°SW and Detail Line "E", which bears N29°W (B) and plunges 11° (PL) in that direction from the minimum slope distance measured (See Detail Line "E" field notes in Appendix C. These are recorded lines 7 to 9 on page 4/4..

Table 4. Continued

1) Correct minimum apparent spacing (MAS) of joints along sloping tape to horizontal distance (HD) between line 9 - 110.8 ft to line 7 - 108.6 ft

$$\mathrm{Cos(PL)} = \frac{HD}{MAS} \qquad \mathrm{Cos}(11^\circ) = \frac{HD}{(110.8-108.6)} \qquad HD = \mathrm{Cos}(11^\circ)2.2 = 2.16 \text{ ft}$$

2) Correct for minimum perpendicular horizontal distance (PHD) between closest joint in set for difference in direction between Detail Line bearing (B) and Joint Set strike (S)

$$\mathrm{Sin}(B-S) = \frac{PHD}{2.16} \qquad \mathrm{Sin}(54^\circ - 29^\circ) = \frac{PHD}{2.16} \qquad PHD = \mathrm{Sin}(25^\circ)2.16 = 0.91 \text{ ft}$$

3) Correct for true minimum spacing (TMS) between closest joints in set

$$\mathrm{Sin(D)} = \frac{TMS}{0.91} \qquad \mathrm{Sin}(38^\circ) = \frac{TMS}{0.91} \qquad TMS = \mathrm{Sin}(38^\circ)0.91 = 0.56 \text{ ft}$$

Table 5. Daylighted joint proportion of intact rock and strength reduction factor for size of minimum intact rock bridge to be sheared between joints along potentially adverse joint sets along Ultimate Pit Boundary.

Detail Line and Rock Type	Joint Strike	Joint Dip	Proportion of Intact Rock	Minimum Spacing of Joint Set (ft)	Strength Reduction Divisor
A - Tr	N80°W	38°SW	0.206	1.04	3.33
	N03°E	53°NW	0.020	0.06	1.00
D - Tr	N30°W	32°SW	0.003	0.02	1.00
	N51°E	62°NW	0.079	0.43	1.87
E - Tmp	N11°W	48°NE	0.088	0.77	2.74
	N54°W	38°SW	0.157	0.56	2.22
F - Tmp	N44°W	43°SW	0.029	0.12	1.00
G - Trp	N38°E	40°SE	0.011	0.09	1.00
	N72°E	50°NW	0.007	0.03	1.00
	N11°E	27°SE	0.052	0.44	1.89
I - Tql	N20°W	22°SW	0.006	1.85	4.87
	N22°W	55°NE	0.520	6.49	11.12
	N07°W	38°NE	0.228	0.59	2.30
	N06°E	56°SE	0.356	2.21	5.48
E+F - Tmp	N50°W	37°SW	0.135	0.47	1.98
	N13°W	51°NE	0.106	0.71	2.60

1) Calculation of proportion of intact rock (PIR):

PIR equals Minimum Joint Spacing (JS) divided by Maximum Trace Length (TL) plus Minimum Joint Spacing (JS). Joint Set "E" with N54°W Strike and 38°SW Dip, 0.56-ft Minimum Joint Spacing (JS) and 8-ft Maximum Trace Length (TL).

$$PIR = \frac{JS}{TL+JS} = \frac{0.56}{3+0.56} = 0.157$$

Table 6. Continued

2) Calculation for Strength Reduction Divisor (SRD) for size of rock bridges along potential Joint Set "E" failure surface. Size of Joint Set "E" bridge defined by Minimum Joint Spacing (JS) of 0.56-ft. Standard size taken as the 2-in diameter for specimens tested in accordance with American Society for Testing and Materials (ASTM) standards for uniaxial and triaxial rock testing (ASTM D 2938 and ASTM D 2664) respectively. The strength reduction with respect to size (SZ) in inches, is taken from statistical best fit of the testing results reported by Bieniawski (1968), as follows:

$$ST = 7330\left(SZ^{-0.658}\right) \quad ST_2 = 7330\left(2^{-0.658}\right) = 4646\text{psi} \quad ST_{0.56} = 7330[0.56(12)]^{-0.658} = 2093\text{psi}$$

$SRD = \frac{ST_2}{ST_{0.56}} = \frac{4646}{2093} = 2.22$ The estimated shear strength of the 0.56-ft (6.72-in) rock bridge is then the 2397 psi cohesion of the 2-in diameter specimens of the Detail Line "E", Tmp - Middle pyroclastic unit, divided by 2.22, or 1080 psi.

The next step in the plane shear stability analysis was the calculation of the proportion of intact rock along the worst-case failure path through the toe of the slope. The results of this calculation for each potentially adverse fracture set is presented in Table 5. Table 5 includes a sample proportion of intact rock calculation for the same N54°W striking, 38°SW dipping joint set used in the Table 4 example. This calculation should be conservative because the minimum joint spacing was used to estimate the intact rock along the assumed failure path and the maximum fracture trace length was used to estimate the naturally broken rock along the assumed failure path.

The strength reduction divisor was calculated to account for the reduction in rock strength with increase in size of the rock bridge. The conservative Bieniawski (1968) size/strength relationship equation, presented previously was used to calculate the strength reduction divisor. The sample calculation included in Table 5 is for the same joint set used in the previous examples.

The slope stability analysis then shifted to the structural domains and the detail lines involved in each structural domain. Figure 2 presented the structural domains. Table 6 presents the side of the pitwall along the Ultimate Pit Boundary for each of the eleven structural domains that intersect the pit boundary. Table 6 also presents the direction the pitwall faces along the Ultimate Pit Boundary within each structural domain, the detail lines in the structural domain and the rock type. Table 6 includes Structural Domain 12, which lies inside the Ultimate Pit Boundary. The same data is presented for Structural Domain 12.

Table 7 presents the results from the analysis of the topographic and planned Ultimate Pit excavation. The information included the crest direction of the pitwall within each structural domain. The variation of the crest direction for the highwall in each structural domain is important because any potentially adverse fracture set with a strike within the range of highwall directions in that structural domain represents a critical highwall, provided only that the dip direction is out of the highwall, as was indicated for plane shear slope failure in Figure 4. Table 7 also presents the maximum heights of the pitwalls in each structural domain. These heights are for the critical, worst-case, pitwalls indicated on Figure 3. The north side pitwall slopes of Structural Domains 2, 3 and 4, plus a portion of Structural Domains 1 and 5 on Soledad Mountain have no indicated height because the pit excavation along the Ultimate Pit Boundary proceeds into the north side of the mountain. This situation can be seen on Figure 2. Structural Domain 1 and Structural Domain 5 are exceptions. The planned Ultimate Pit excavation in Structural Domain 1 cuts back into the rock toward the east end of the north side of Structural Domain 1 to extract the GQ-1A Pit (Karma-Wegmann orebody). Structural Domain 5 includes relatively shallow, less than 240

Table 6. Structural Domains, orientation of Ultimate Pitwall, Detail Lines and rock types

Structural Domain	Ultimate Pitwall Orientation Side of Ultimate Pit (Direction Pitwall Faces) From - Through - To	Detail Line(s) Involved	Rock Type
1	N90E - N30E - N40W (S90W - S30W - S40E)	I	Tql
2	N40W - N55W - N07W (S40E - S55E - S07E)	A	Tr
3	N07W - N11W - N15W (S07E - S11E - S15E)	None	Qal
4	N15W - N10E - N50E (S15E - S10W - S50W)	I	Tql
5	N50E - N45W - S50W (S50W - S45E - N50E)	E + F	Tmp
6	S50W - S25W - S86W (N50E - N25E - N86E)	D	Tr
7	S86W - N70W - N52W (N86E - S70E - S52E)	C	Tup
8	N52W - S45W - S05W (S52E - N45E - N05E)	G	Trp
9	S05W - S00W - S05E (N05E - N00E - N05W)	B or C	Tup
10	S05E - S30E - S60E (N05W - N30W - N60W)	G	Trp
11	S60E - S25W - N90E (N60W - N25E - S90W)	B or C	Tup
12	S10W - S35W - S30E (N10E - N35W - N30W)	E + F	Tmp

Table 7. Maximum height of Ultimate Pitwall within Sructural Domains

Structural Domain & Detail Line	Ultimate Pitwall Direction Start - Central - Finish (Parallel to adverse strike)	Maximum Height Slope Plunge Bearing (ft)	Rock Type
1 - I	N00E - N60W - N50E	400 - East 0 - N	Tql
2 - A	N50E - N35E - N80E N50W - N35W - N70W	0 - N 550 - NE	Tr
3 - None	N83E - N79E - N75E	0 - N	Qal
5 - E+F	N40W - N45E - N40W	220 - SW 180 - NW 240 - NE	Tmp
6 - D	N40W - N65W - N04W	220 - SW	Tr
7 - C	N04W - N20E - N38E	240 - NW	Tup
8 - G	N38E - N70W - N85W	860 - SW	Trp
9 - B&C G	N85W - N90W - N85E	40 - S 740 - S	Tup Trp
10 - G	N85E - N60E - N30E	760 - S	Trp
11 - B&C	N30E - N65W - N00W	1300 - NE 780 - SE 960 - SW	Tup
12 - E+F	N80W - N35W - N10W	850 - SW	Tmp

feet, planned excavation of the GQ-2NW Pit (Knight Property) into the northwest ridge off Soledad Mountain. Most of the planned slopes for GQ-2NW extend to the Ultimate Pit Boundary. Structural Domain 2 extends inside the Ultimate Pit Boundary and planned excavation of GQ-5A Pit (Pit 4 Extension) will develop a 550-foot high southwest facing pitwall, well inside the Ultimate Pit Boundary. Table 7 also includes the 850-foot maximum pitwall height in Structural Domain 12. Structural Domain 12 lies well inside the Ultimate Pit Boundary.

Table 8 presents the conservatively calculated factors of safety for the Structural Domain 1 daylighted fracture set that strikes N20°W and dips 22° SW. Table 8 presents the plane shear factors of safety of the potential plane shear failure using one-dimensional and two-dimensional estimates of intact rock along the potential failure surfaces and for a dry and a fully saturated slope. The calculated factor of safety for 99.9% confidence, 55° dry slope is 2.57. The planned slope is predicted to be stable under the absolutely worst-case plane shear conditions of one-dimensional intact rock and fully saturated conditions, factor of safety of 1.62.

Table 9 presents the conservatively calculated factors of safety for the Structural Domain 12 daylighted fracture set that strikes N13°W and dips 51° SW. Table 9 presents the plane shear factors of safety of the potential plane shear failure using one-dimensional and two-dimensional estimates of intact rock along the potential failure surfaces and for a dry and a fully saturated slope. The calculated factor of safety for 99.9% confidence, 55° dry slope is 5.70. The planned slope is predicted to be stable under the absolutely worst-case plane shear conditions of one-dimensional intact rock and fully saturated conditions, factor of safety of 5.49.

Table 10 presents the conservatively calculated factors of safety for one Structural Domain 5 daylighted fracture set, the one that strikes N50°W, dips 37° SW and is a potential hazard to the 240-foot high northeast side of GQ-2NW Pit. Table 10 presents the plane shear factors of safety of the potential plane shear failure using one-dimensional and two-dimensional estimates of intact rock along the potential failure surfaces and for a dry and a fully saturated slope. The calculated factor of safety for 99.9% confidence, 55° dry slope is 9.81. The planned slope is predicted to be stable under the absolutely worst-case plane shear conditions of one-dimensional intact rock and fully saturated conditions, factor of safety of 9.34.

Table 11 presents the conservatively calculated factors of safety for one Structural Domain 5 daylighted fracture set, the one that strikes N13°W, dips 51°NE and is a potential hazard to the 220-foot high southwest side of GQ-2NW Pit. Table 11 presents the

Table 8. Factors of safety for potentially hazardous plane shear joint set striking N20°W and dipping 22°SW, Domain 1 (Detail Line I), for Ultimate Pit Boundary at GQ-1A (Karma-Wegmann) Pit.

Quartz Latite Porphyry, overall slope height - 400 ft.

FACTORS OF SAFETY

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	2.69	2.56	2.56	3.17	3.10	3.10
55	2.69	2.57	2.57	3.18	3.11	3.11

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	1.69	1.61	1.61	2.01	1.96	1.96
55	1.70	1.62	1.62	2.02	1.97	1.97

Table 9. Factors of safety for potentially hazardous plane shear joint set striking N13°W and dipping 51°SW, Domain 12 (Detail Lines E + F), on northeast facing pitwall, Domain 12 (Detail Lines E + F), for inside the Ultimate Pit at GQ-1A (Karma-Wegmann) and GQ-1B (Independent) Pits.

Middle Pyroclastic Unit, overall slope height - 850 ft.

FACTORS OF SAFETY

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	2.39	2.35	2.35	4.05	4.02	4.02
55	5.73	5.70	5.70	10.34	10.31	10.31

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	2.16	2.14	2.14	3.81	3.79	3.79
55	5.51	5.49	5.49	10.10	10.08	10.08

Table 10. Factors of safety for potentially hazardous plane shear joint set striking N50°W and dipping 37°SW, Domain 5 (Detail Lines E + F), for Ultimate Pit Boundary at GQ-2NW Pit; Knight Property.

Middle Pyroclastic Unit, overall slope height - 240 ft.

FACTORS OF SAFETY

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level			Confidence Level		
	80%	98%	99.9%	80%	98%	99.9%
63.4	7.85	7.65	7.65	13.73	13.56	13.56
55	10.01	9.81	9.81	17.75	17.06	17.06

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level			Confidence Level		
	80%	98%	99.9%	80%	98%	99.9%
63.4	7.28	7.18	7.18	13.12	13.04	13.04
55	9.44	9.34	9.34	17.14	17.06	17.06

Table 11. Factors of safety for potentially hazardous plane shear joint set striking N13°W and dipping 51°NE Domain 5 (Detail Lines E + F), for Ultimate Pit Boundary at GQ-2NW Pit; Knight Property.

Middle Pyroclastic Unit, overall slope height - 220 ft.

FACTORS OF SAFETY

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level			Confidence Level		
	80%	98%	99.9%	80%	98%	99.9%
63.4	7.65	7.61	7.61	13.95	13.92	13.92
55	20.57	20.54	20.54	38.27	38.24	38.24

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level			Confidence Level		
	80%	98%	99.9%	80%	98%	99.9%
63.4	7.43	7.41	7.41	13.71	13.71	13.71
55	20.35	20.33	20.33	38.04	38.02	38.02

plane shear factors of safety of the potential plane shear failure using one-dimensional and two-dimensional estimates of intact rock along the potential failure surfaces and for a dry and a fully saturated slope. The calculated factor of safety for 99.9% confidence, 55° dry slope is 20.54. The planned slope is predicted to be stable under the absolutely worst-case plane shear conditions of one-dimensional intact rock and fully saturated conditions, factor of safety of 20.33.

It is unlikely that the planned highwall slopes of the Soledad Mountain project will be subject to any hydraulic uplift pressure. Inspection of the old underground workings indicate that ground water has been drained from Soledad Mountain. The hydraulic uplift pressure and force, shown on Figure 8, would if present in Soledad Mountain decrease the stability of the slopes because it reduces the normal force acting across the potential failure surface and, therefore, the frictional resistance to failure. The drainage of ground water from Soledad Mountain could have been through the old underground mine workings or by the gravitational effect of Soledad Mountain's elevation above the adjacent plain, or some combination of both.

WEDGE SHEAR SLOPE ANALYSIS

The potential wedge shear sliding hazards present at the Soledad Mountain Project were analyzed by first using the Schmidt equal-area plots to construct the diagrams in Appendix C to determine the dihedral angles, bearings and plunges of all potentially hazardous wedge intersections. Experience has demonstrated that the same limiting condition criteria govern the development of wedge shear slope failures as do plane shear sliding, i.e. plunge of the line of intersection less than the slope face and greater than the residual friction angle for the rock type. Therefore, the first effort was put into determining the wedge intersection parameters.

Table 12 lists all wedge intersections that were determined from the fracture sets detected in the fracture orientation data mapped along Detail Line I. The plunge of all the wedges is either too steep, greater than 63.4°, or too flat, less than 31.4° the angle of surface friction of the latite Porphyry to provide a failure path.

Table 13 lists all wedge intersections that were determined from the fracture sets detected in the fracture orientation data mapped along Detail Lines E and F. Three of the potential wedge failure geometries have plunges between the 30.0° residual friction angle of the Middle Pyroclastic Unit and the planned slope angle. One of these wedges had a dihedral angle of 64°, much too narrow to slide as a wedge. Experience indicates that edges with dihedral

Table 12. Potentially hazardous wedge intersections at Ultimate Pit Boundary along ST-1 Pit (Stelzner Pit) and GQ-1A Pit (Karma-Wedgmann deposit), Domain 1 (Detail Line I), Quartz Latite Porphyry

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
A - E	N48°W	70°SW	N48°E	85°NW	87°	S62°W	87°
B - E	N20°W	22°SW	N48°E	85°NW	100°	S50°W	21°
C - E	N18°W	76°SW	N48°E	85°NW	114°	S50°W	76°
D - E	N02°E	80°SW	N48°E	85°SW	130°	S79°W	80°

NOTES: 1) Wedge formed by joint sets A and E does not represent a hazard because the dihedral angle is too narrow, < 90°. 2) Wedge formed by joint sets B and E has a plunge less than residual friction angle and, therefore cannot fail. 3) Wedges formed by joint sets C and E and by joint sets D and E do not represent hazards because their plunges are steeper than any reasonable overall slope angle.

Table 13. Potentially hazardous wedge intersections at Ultimate Pit Boundary along GQ-2NW Pit (Knight Property), Domain 5 (Detail Lines E + F), Middle Pyroclastic Unit

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
A - H	N67°W	85°SW	N13°W	51°NE	64°	S62°E	42°
B - D	**N50°W**	**37°SW**	**N17°E**	**83°NW**	**109°**	**S21°W**	**36°**
B - G	N50°W	37°SW	N82°W	73°NE	74°	N87°W	74°
B - H	N50°W	37°SW	N13°W	51°NE	97°	S28°E	16°
G - H	**N82°W**	**73°NE**	**N13°W**	**51°NE**	**116°**	**N75°E**	**50°**

NOTES: 1) Bold face joint wedge orientations are potentially hazardous to the stability of overall slope angles steeper than their plunges. 2) Wedges formed by joint sets A and H and by joint sets B and G do not represent hazards because their dihedral angles are too narrow, < 90°. 3) Wedge formed by joint sets B and H has a plunge less than residual friction angle and, therefore cannot fail. 4) Wedge formed by joint set B and G does not represent a hazard because the plunge is steeper than any reasonable overall slope angle.

angles less than 104° do not slide, apparently because of their large surface area and resulting cohesion along the potential failure surface. The other two wedge geometries in Table 13 require additional analysis to determine their potential to fail as wedges.

Table 14 lists all wedge intersections that were determined from the fracture sets detected in the fracture orientation data mapped along Detail Line D. The 55° plunge of one wedge intersection lies within the range that could result in failure. However, one of these has a dihedral angle of 160°. Wedge failure is not predicted because the dihedral angle is wider than approximately 130°. Dihedral angles greater than approximately 130° fail as plane shear geometries.

Two of the three wedge geometries in Table 15 have plunges that lie in the critical range between the residual friction angle of 23.5° for the Upper Pyroclastic Unit and the planned pit slopes. However, these two wedge geometries have extremely narrow dihedral angles.

Table 16 presents the wedge geometries extracted from the fractures mapped along Detail Line G (Trp). Two of the four wedge geometries have plunges that are less than the 30.5° residual friction angle of the Rhyolite Porphyry. Of the remaining two wedge geometries one has too narrow a dihedral angle and the other too wide.

The fracture orientation data from Detail Line A indicated the single potentially adverse wedge geometry shown in Table 17. This wedge geometry meets all the criteria for potential failure and required further analysis.

The potentially adverse wedge geometry in Domain 12, Detail Lines E + F, the Middle Pyroclastic Unit, inside the Ultimate Pit contains one potentially adverse wedge geometry. Table 18 presents the dihedral angle, bearing and plunge of this potentially adverse wedge.

The next step in wedge shear analysis is the measurement of the irregularity angles for the potentially adverse wedge failure geometries extracted from Detail Lines E + F, Domain 5, and from Detail Line A, Domain 2. The irregularity angles are measured on the Schmidt equal-area data plot for the detail line found in Appendix B. The irregularity angles are measured in the direction of potential movement and failure. Table 19 presents the irregularity angles for the Domain 5 wedge failure geometries and Table 20 presents the irregularity angles for the Domain 2 wedge failure geometry. Table 21 presents the irregularity angles for the Domain 12 wedge failure geometry. Tables 19, 20 and 21 also present the minimum joint spacing and maximum trace length for each potentially adverse wedge geometry.

Table 14. Potentially hazardous wedge intersections at Ultimate Pit Boundary; Domain 6; GQ-2 Pit and GQ-2NW Pit (Knight Property); Detail Line D; Aphanitic Rhyolite

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
C - D	N73°E	86°NW	N14°W	81°NE	90°	N47°E	80°
D - G	N14°W	81°NE	N57°E	70°SE	110°	S42°E	70°
D - F	N14°W	81°NE	N55°E	84°SE	121°	N76°E	81°
E - G	N04°E	85°SE	N57°E	70°SE	125°	S03°E	67°
F - G	N55°E	84°SE	N57°E	70°SE	160°	S24°W	55°

NOTES: 1) Wedges formed by joint sets C and D, joint sets D and G, joint sets D and F and joint sets E and G do not represent hazards because their plunges are steeper than any reasonable overall slope angle. 2) Wedge formed by joint sets F and G does not represent a wedge failure hazard because the dihedral angle exceeds 130°, meaning failure can only occur as the result of plane shear failure. 3) Wedges formed by joint sets D and G, joint sets E and G and joint sets F and G do not represent hazards because they plunge south and not northeasterly out of rhyolite exposed in Domain 6, between N50°E and N86°E.

Table 15. Potentially hazardous wedge intersections at Ultimate Pit Boundary, Domains 7 and 9 along GQ-6 Pit (Big Butte Pit) and Domain 11 along nose of waste between GQ-5C Pit, GQ-5B Pit and GQ-5A Pit (Pit 4 Extensions), GQ-1B Pit (Karma-Wegmann) and ST-1 Pit (Stelzner); Detail Lines B + C, Upper Pyroclastic Unit

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
A - B	N49°E	84°NW	N68°E	80°NW	161°	N28°E	72°
A - D	N49°E	84°NW	N53°E	88°SE	6°	N56°E	48°
B - D	N68°E	80°NW	N53°E	88°SE	17°	S51°W	47°

NOTES: 1) Wedge formed by joint sets A and B does not represent a hazard because its plunge is steeper than any reasonable overall slope angle. 2) Wedges formed by joint sets A and D and by joint sets B and D do not represent hazards because their dihedral angles are too narrow, < 90°. 3) Wedge formed by joint sets A and B does not represent a wedge failure hazard because the dihedral angle exceeds 130°, meaning failure can only occur as the result of plane shear failure.

Table 16. Potentially hazardous wedge intersections at Ultimate Pit Boundary, Domain 8, 9 and 10 along GQ-6 Pit (Big Butte Pit); Detail Line G; Rhyolite Porphyry.

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
B - E	N72°E	50°NW	N11°E	27°NE	114°	N54°E	19°
B - F	N72°E	50°NW	N15°E	68°SE	70°	N33°E	37°
B - H	N72°E	50°NW	N41°E	64°SE	71°	N52°E	22°
F - H	N15°E	68°SE	N41°E	64°SE	156°	S42°E	64°

NOTES: 1) Wedges formed by joint sets B and F and by joint sets B and H do not represent hazards because their dihedral angles are too narrow, < 90°. 2) Wedge formed by joint sets F and H does not represent a wedge failure hazard because the dihedral angle exceeds 130°, meaning failure can only occur as the result of plane shear failure. 3) Wedges formed by joint sets B and E and by joint sets B and H have plunges less than residual friction angle and, therefore cannot fail.

Table 17. Potentially hazardous wedge intersection inside Ultimate Pit Boundary, Domain 2 along GQ-5A Pit ; Detail Line A; Aphanitic Rhyolite.

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
A - B	**N80°W**	**38°SW**	**N03°E**	**53°NW**	**123°**	**S36°W**	**36°**

NOTE: The bold face joint wedge orientation is potentially hazardous to the stability of overall slope angles steeper than its 36° plunge.

Table 18. Potentially hazardous wedge intersection inside Ultimate Pit Boundary, Domain 12 in area of GQ-1 Pit (Queen Ester) and GQ-1B Pit (Independent); Detail Lines E + F; Middle Pyroclastic Unit.

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
G - H	**N82°W**	**73°NE**	**N13°W**	**51°NE**	**116°**	**N75°E**	**50°**

NOTE: The bold face joint wedge orientation is potentially hazardous to the stability of overall slope angles steeper than its 50° plunge.

Table 19. Daylighted joint properties for potential wedge shear failures at Ultimate Pit Boundary; Detail Lines E + F; Domain 5; at GQ-2NW Pit; Knight Property; Middle Pyroclastic Unit.

Domain Number	Joint Strike	Joint Dip	Joint Spacing Minimum (ft)	Joint Trace Length Maximum (ft)	Irregularity Angles (degrees) Confidence Levels 80%	98%	99.9%
5 Tmp	N50°W N17°E	37°SW 83°NW	0.47 1.00	3 20	8 10	0 7	0 5
5 Tmp	N82°W N13°W	73°NE 51°NE	0.20 0.71	20 6	10 5	5 0	0 0

Table 20. Daylighted joint properties for potential wedge shear failures inside Ultimate Pit Boundary, Domain 2 along GQ-5A Pit ; Detail Line A; Aphanitic Rhyolite.

Domain Number	Joint Strike	Joint Dip	Joint Spacing Minimum (ft)	Joint Trace Length Maximum (ft)	Irregularity Angles (degrees) Confidence Levels 80%	98%	99.9%
2 Tr	N80°W N03°E	38°SW 53°NW	1.04 0.06	4 3	3 5	0 0	0 0

Table 21. Daylighted joint properties for potential wedge shear failures inside Ultimate Pit Boundary; Detail Lines E + F; at GQ-1 Pit (Queen Ester) and GQ-1B Pit (Independent); Domain 12; Middle Pyroclastic Unit

Domain Number	Joint Strike	Joint Dip	Joint Spacing Minimum (ft)	Joint Trace Length Maximum (ft)	Irregularity Angles (degrees) Confidence Levels 80%	98%	99.9%
12 0	N82°W	73°NE	0.20	20	10	5	
Tmp 0	N13°W	51°NE	0.71	6	5	0	

The proportion of intact rock and the strength reduction divisor were calculated for the potential wedge failure geometries in Domain 5, Domain 2 and Domain 12. These values are presented in Table 22.

Table 23 presents the conservatively calculated factors of safety for the Structural Domain 5 daylighted fracture wedge intersection that bears S21^{0}W and plunges 36^0. Table 23 also presents the conservatively calculated factors of safety for the other potentially hazardous wedge intersection in Structural Domain 5 that bears N75^{0}E and plunges 50^0. Table 23 presents the wedge shear factors of safety for one-dimensional and two-dimensional estimates of intact rock along the two joint sets that provide the potential failure surfaces in each case and for a dry and a fully saturated slope. The planned 55° slopes are predicted to be extremely stable, factors of safety of 11.87 in the first case and 8.20 in the second case, under the absolutely worst-case plane shear conditions of one-dimensional intact rock and fully saturated conditions.

Table 24 presents the conservatively calculated factors of safety for the potentially hazardous wedge intersection in Structural Domain 2 that bears S36^{0}W and plunges 36^0. Table 24 presents the wedge shear factors of safety for one-dimensional and two-dimensional estimates of intact rock along the two joint sets that provide the potential failure surfaces and for a dry and a fully saturated slope. The planned slope is predicted to be stable under the absolutely worst-case plane shear conditions of one-dimensional intact rock and fully saturated conditions. The calculated factors of safety for this wedge are sufficiently low, at least 2.20 for fully saturated 55° slope angles and 99.9% confidence, to warrant occasional inspection of the crest of the slope for the development of headwall cracks, an early indication of approaching slope instability.

Table 25 presents the conservatively calculated factors of safety for the potentially hazardous wedge intersection in Structural Domain 12 that bears N75^{0}E and plunges 50^0. Table 25 presents the wedge shear factors of safety for one-dimensional and two-dimensional estimates of intact rock along the two joint sets that provide the potential failure surfaces and for a dry and a fully saturated slope. The planned slope is predicted to be stable under the absolutely worst-case plane shear conditions of one-dimensional intact rock and fully saturated conditions. The calculated factors of safety for this wedge are sufficiently low, at least 3.58 for fully saturated 55° slope angles and 99.9% confidence, to warrant occasional inspection of the crest of the slope for the development of headwall cracks, an early indication of approaching slope instability.

Table 22. Daylighted joint proportion of intact rock and strength reduction factor for size of minimum intact rock bridge to be sheared between joints in potentially adverse wedges.

Structural Domain and Rock Type	Joint Strike	Joint Dip	Proportion of Intact	Minimum Spacing of Joint Set (ft)	Strength Reduction Divisor
5 - Tmp	N50°W	37°SW	0.135	0.47	1.98
	N17°E	83°NW	0.048	1.00	3.25
5 - Tmp	N82°W	73°NE	0.010	0.20	1.13
	N13°W	51°NE	0.106	0.71	2.60
2 - Tr	N80°W	38°SW	0.206	1.04	3.34
	N03°E	53°NW	0.020	0.06	1.00
12 - Tmp	N82°W	73°NE	0.010	0.20	1.13
	N13°W	51°SW	0.106	0.71	2.60

Table 23. Factors of safety for potentially hazardous wedge intersections, Domain 5 (Detail Lines E + F), for Ultimate Pit Boundary at GQ-2NW Pit; Knight Property.

Wedge G - H FACTORS OF SAFETY

Middle Pyroclastic Unit, overall slope height - 240 ft.

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	5.37	5.28	5.27	9.68	9.59	9.59
55	12.19	12.09	12.09	22.63	22.55	22.54

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	5.12	5.06	5.06	9.42	9.36	9.36
55	11.93	11.88	11.87	22.37	22.32	22.32

Wedge B - D FACTORS OF SAFETY

Middle Pyroclastic Unit, overall slope height - 220 ft.

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	7.30	7.02	7.01	12.62	12.38	12.37
55	9.05	8.78	8.77	15.94	15.70	15.68

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	6.58	6.45	6.45	11.88	11.77	11.76
55	8.34	8.21	8.20	15.20	15.08	15.08

Table 24. Factors of safety for potentially hazardous wedge intersections, Domain 2 (Detail Line A), for Ultimate Pit Boundary at GQ-5A Pit.

Wedge A - B

FACTORS OF SAFETY

Middle Pyroclastic Unit, overall slope height - 550 ft.

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	2.53	2.42	2.42	3.75	3.65	3.65
55	2.91	2.80	2.80	4.43	4.33	4.33

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	1.87	1.82	1.82	2.98	2.93	2.93
55	2.25	2.20	2.20	3.66	3.61	3.61

Table 25. Factors of safety for potentially hazardous wedge intersection on northeast facing pitwall, Domain 12 (Detail Lines E + F), for inside the Ultimate Pit at GQ-1A (Karma-Wegmann) and GQ-1B (Independent) Pits.

Wedge G - H FACTORS OF SAFETY

Middle Pyroclastic Unit, overall slope height - 850 ft.

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	1.97	1.87	1.87	3.20	3.12	3.11
55	3.89	3.80	3.79	6.86	6.77	6.77

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	1.72	1.66	1.66	2.94	2.89	2.89
55	3.64	3.58	3.58	6.60	6.55	6.54

SUMMARY AND CONCLUSIONS

A conservative limiting equilibrium slope analysis of the planned 55° overall slope angles for the Soledad Mountain Project indicated that all of the planned pit slopes should be stable. The primary reasons for the indicated slope stability are geologic. The fracture mapping performed demonstrated that the predominant fracture orientations are steeply dipping. The majority of the fractures mapped are steeper than the planned 55° slopes. In fact, the majority of the fractures mapped would be steeper than slopes at two units vertical to one unit horizontal, 63.4°. The two vertical to one horizontal slope is about as steep that a slope can be excavated while providing catch benches for occasional ravel.

The Soledad Mountain topographic high, and the steeply dipping jointing have apparently served to lower the water table in this area of minimal rainfall. Previous underground mining has provided additional drainage for Soledad Mountain. The old underground mine workings inspected in Soledad Mountain were generally dry and occasionally damp, but not wet.

The weakness paths presented by the generally steeply dipping natural fractures resulted in wedge shear being the predominant potential mode of slope failure. The intersection geometry of wedge shear provides a line of intersection that is flatter than the dip of either of the two fracture sets that form the wedge. Therefore, at the Soledad Mountain Project wedge shear is more likely mode of slope instability. Plane shear is the more frequent failure mode in areas where the natural jointing pattern contains more flat dipping fracture sets.

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APPENDIX A

PHYSICAL TEST RESULTS

APPENDIX A

Table A1. Uniaxial and Triaxial Compression Test Results

Sample Ident.	Length (in.)	Diam. (in.)	Confining Pressure (psi)	Failure Load (lb)	Failure Stress (psi)	2 x 1 Corrected (psi)	Structural Control of Failure
Detail Lines "A" and "H", Tr - Aphanitic Rhyolite, flow banded							
A3#2	3.777	1.944	0	42000	14150	14100	Yes
A3#4	3.787	1.950	0	27100	9070	9040	Yes
A3#3	4.010	1.941	250	58500	19750	19830	Yes
A1#2	4.506	1.954	500	46600	15520	15780	Minor
A3#1	4.409	1.948	750	67400	22570	22900	Yes
A4#3	4.057	1.955	1000	139200	46320	46530	Yes
A2#1	4.254	1.941	1250	121000	40810	41260	Yes
A1#1	4.583	1.944	1500	54000	18100	18450	Yes

Failure Strength (psi) = 13970 + 14.497(Confining Pressure - psi)

Angle of Internal Friction = 60.6°
Internal Cohesion = 1835 psi

$r^2 = 0.379$; $S_{yx} = 11340$ psi; $T_{calc} = 1.915$ (90%)

Sample Ident.	Length (in.)	Diam. (in.)	Confining Pressure (psi)	Failure Load (lb)	Failure Stress (psi)	2 x 1 Corrected (psi)	Structural Control of Failure
Detail Line "B" and "C", Tup - Upper Pyroclastic Unit							
B1#3	3.852	1.934	0	62250	21190	21180	Minor
B3#3	4.391	1.939	0	20000	6770	6870	Moderat
B1#2	4.416	1.940	250	33400	11280	11460	Minor
B3#1	4.436	1.940	500	58100	19620	19940	Minor
B1#4	4.863	1.937	750	42300	14300	14680	Yes
B1#7	4.499	1.933	1000	90100	30630	31180	No
B3#2	4.388	1.940	1250	71300	24040	24390	Minor
B1#5	4.706	1.938	1500	75000	25320	25900	Moderat

Failure Strength (psi) = 12940 + 9.922(Confining Pressure - psi)

Angle of Internal Friction = 54.8°
Internal Cohesion = 2054 psi

$r^2 = 0.489$; $S_{yx} = 6200$ psi; $T_{calc} = 2.395$ (95%)

APPENDIX A (Continued)

Table A1. Uniaxial and Triaxial Compression Test Results (Con't)

Sample Ident.	Length (in.)	Diam. (in.)	Confining Pressure (psi)	Failure Load (lb)	Failure Stress (psi)	2 x 1 Corrected (psi)	Structual Control of Failure
	Detail Line "D", Tr - Aphanitic Rhyolite, flow banded						
D5#2	3.646	1.990	0	12500	4020	3970	Yes
D5#1	3.771	1.989	0	46600	15000	14900	Moderate
D2#3	3.898	1.986	250	112800	36410	36320	Minor
D1#2	4.088	1.987	500	131500	42400	42550	Minor
D2#1	4.323	1.987	750	108000	34820	35170	Yes
D1#3	4.315	1.982	1000	161000	52160	52700	Moderate
D2#2	4.367	1.989	1250	103000	33130	32510	Moderate
D1#1	4.402	1.984	1500	131000	42350	42870	Yes

Failure Strength (psi) = 19960 + 19.487(Confining Pressure - psi)

Angle of Internal Friction = 64.5°
Internal Cohesion = 2261 psi

r^2 = 0.483; S_{yx} = 12320 psi; T_{calc} = 2.368 (95%)

Sample Ident.	Length (in.)	Diam. (in.)	Confining Pressure (psi)	Failure Load (lb)	Failure Stress (psi)	2 x 1 Corrected (psi)	Structual Control of Failure
	Detail Line "E", Tmp - Middle Pyroclastic Unit						
E3#2	3.804	1.985	0	65600	21200	21080	Minor
E4#3	3.922	1.980	0	33350	10830	10820	Minor
E3#1	3.966	1.986	250	51700	16680	16680	Minor
E5#3	4.135	1.988	500	83500	26890	27020	Minor
E2#2	4.064	1.986	750	47000	15160	15200	Yes
E2#1	4.600	1.989	1000	68000	21870	22250	Moderate
E1#1	4.538	1.987	1250	73000	23520	23890	No
E4#1	4.718	1.986	1500	63000	20310	20720	Yes
E10#1	4.063	1.957	500	105000	34880	35040	Minor
E11#1	3.877	1.957	750	49300	16360	16340	Moderate
E10#3	3.888	1.956	1500	165300	54940	54900	Minor

Failure Strength (psi) = 15950 + 11.947(Confining Pressure - psi)

Angle of Internal Friction = 56.5°
Internal Cohesion = 2397 psi

r^2 = 0.244; S_{yx} = 11120 psi; T_{calc} = 1.704 (88%)

APPENDIX A (Continued)

Table A1. Uniaxial and Triaxial Compression Test Results (Con't)

Sample Ident.	Length (in.)	Diam. (in.)	Confining Pressure (psi)	Failure Load (lb)	Failure Stress (psi)	2 x 1 Corrected (psi)	Structual Control of Failure
Detail Line "F", Tmp - Middle Pyroclastic Unit							
F2#2	3.423	1.992	0	67200	21560	21130	Moderate
F3#4	3.552	1.994	0	63500	20340	20030	Minor
F2#3	3.733	1.991	250	86200	27680	27460	Minor
F3#1	4.052	2.008	500	71300	22520	22540	Minor
F3#2	4.056	2.005	750	96700	30600	30670	No
F5#1	4.255	1.945	1000	60000	20140	20350	Moderate
F1#1	4.329	1.985	1250	51800	16720	16890	Yes
F3#3	4.540	2.008	1500	105100	33200	33680	Moderate
F12#2	3.931	1.976	250	38600	12580	12570	No
F13#1	3.002	1.972	750	82600	27020	26000	No
F11#1	3.628	1.973	1000	157000	51320	50770	No
F12#1	3.475	1.973	1250	31900	10400	10220	Yes
F10#1	4.124	1.975	1500	72100	23490	23620	Minor

Failure Strength (psi) = 21680 + 3.413(Confining Pressure - psi)

Angle of Internal Friction = 33.1°
Internal Cohesion = 5867 psi

r^2 = 0.031; S_{yx} = 10620 psi; T_{calc} = 0.595 (43%)

Detail Lines "E" and "F", Tmp - Middle Pyroclastic Unit

Failure Strength (psi) = 18960 + 6.938(Confining Pressure - psi)

Angle of Internal Friction = 48.4°
Internal Cohesion = 3600 psi

r^2 = 0.111; S_{yx} = 10540 psi; T_{calc} = 1.662 (89%)

APPENDIX A (Continued)

Table A1. Uniaxial and Triaxial Compression Test Results (Con't)

Sample Ident.	Length (in.)	Diam. (in.)	Confining Pressure (psi)	Failure Load (lb)	Failure Stress (psi)	2 x 1 Corrected (psi)	Structual Control of Failure
	Detail Line "G", Trp - Rhyolite Porphyry, flow banded						
G#3	3.824	1.940	0	6900	2330	2330	Moderate
G#6	4.009	1.974	0	14300	4670	4680	Minor
G#1	4.490	1.972	250	23700	7750	7870	Minor
G#2	4.525	1.965	500	32500	10700	10880	No
G#4	4.500	1.978	750	66800	21720	22050	No
G#5	4.193	1.978	1000	58300	18950	19080	Yes
G#7	4.082	1.977	1250	40900	13290	13340	Minor
G#8	4.014	1.973	1500	43100	14050	14080	Minor

Failure Strength (psi) = 6250 + 8.444(Confining Pressure - psi)

Angle of Internal Friction = 52.0°
Internal Cohesion = 1075 psi

$r^2 = 0.496$; $S_{yx} = 5200$ psi; $T_{\infty} = 2.430$ (95%)

Sample Ident.	Length (in.)	Diam. (in.)	Confining Pressure (psi)	Failure Load (lb)	Failure Stress (psi)	2 x 1 Corrected (psi)	Structual Control of Failure
	Detail Line "I", Tql - Quartz Latite Porphyry						
I#7	3.994	1.990	0	38300	12310	12320	Minor
I#8	4.074	1.987	0	63000	20320	20380	No
I#1	4.463	1.993	250	97300	31190	31610	Minor
I#2	4.442	1.991	500	109500	35160	35630	No
I#3	4.420	1.991	750	72000	23120	23410	Yes
I#4	4.315	1.991	1000	100000	32110	32420	Yes
I#5	4.121	1.990	1250	106250	34150	34290	Minor
I#6	4.196	1.990	1500	107000	34380	34610	Minor

Failure Strength (psi) = 21340 + 10.273(Confining Pressure - psi)

Angle of Internal Friction = 55.3°
Internal Cohesion = 3329 psi

$r^2 = 0.474$; $S_{yx} = 6610$ psi; $T_{\infty} = 2.326$ (95%)

APPENDIX A (Continued)

Table A2 Direct Shear Test Results

Sample Ident.	Sample Diameter (in.)	Normal Load (lb)	Normal Stress (psi)	Shear Force (lb)	Shear Stress (psi)
Detail Lines "A" and "H", Tr - Aphanitic Rhyolite, flow banded					
A4#2	1.942	148.10	50.00	91.00	30.72
		296.20	100.00	173.00	58.41
		592.40	200.00	330.20	111.41
A4#3	1.941	147.95	50.00	92.00	31.09
		295.90	100.00	173.00	60.83
		591.80	200.00	355.00	119.97
A4#6	1.954	150.00	50.02	94.00	31.35
		300.00	100.04	182.00	60.69
		600.00	200.08	340.00	113.38

Shear Strength (psi) = 3.58 + 0.558(Normal Stress - psi)

Angle of Surface Friction = 29.1°
Surface Cohesion = 3.58 psi

$r^2 = 0.996$; $S_{yx} = 2.56$ psi; $T_{calc} = 40.690$ (>>99%)

Detail Line "B" and "C", Tup - Upper Pyroclastic Unit

Sample Ident.	Sample Diameter (in.)	Normal Load (lb)	Normal Stress (psi)	Shear Force (lb)	Shear Stress (psi)
B1#1	1.941	147.95	50.00	71.00	23.99
		295.90	100.00	142.00	47.99
		591.80	200.00	266.20	89.90
B1#6	1.942	148.10	50.00	70.00	23.63
		296.20	100.00	131.00	44.23
		592.40	200.00	252.00	85.08
B4#6	1.954	147.95	50.00	72.00	24.33
		295.90	100.00	140.00	47.31
		591.80	200.00	275.00	92.94

Shear Strength (psi) = 2.59 + 0.434(Normal Stress - psi)

Angle of Surface Friction = 23.5°
Surface Cohesion = 2.59 psi

$r^2 = 0.994$; $S_{yx} = 2.41$ psi; $T_{calc} = 33.665$ (>>99%)

APPENDIX A (Continued)

Table A2. Direct Shear Test Results (Con't)

Sample Ident.	Sample Diameter (in.)	Normal Load (lb)	Normal Stress (psi)	Shear Force (lb)	Shear Stress (psi)
Detail Line "D", Tr - Aphanitic Rhyolite, flow banded					
D3#1	1.988	155.20	50.00	93.00	29.96
		310.40	100.00	179.00	57.67
		620.80	200.00	348.20	112.11
D4#1	1.987	155.05	50.00	95.00	30.64
		310.10	100.00	184.00	59.34
		620.20	200.00	350.00	112.87
D4#2	1.991	155.65	50.00	95.00	30.51
		311.30	100.00	192.00	61.67
		622.60	200.00	368.00	118.20

Shear Strength (psi) = 2.95 + 0.558(Normal Stress - psi)

Angle of Surface Friction = 29.2°
Surface Cohesion = 2.95 psi

r^2 = 0.997; S_{yx} = 2.95 psi; T_{calc} = 48.002 (>>99%)

Sample Ident.	Sample Diameter (in.)	Normal Load (lb)	Normal Stress (psi)	Shear Force (lb)	Shear Stress (psi)
Detail Line "E", Tmp - Middle Pyroclastic Unit					
E4#2	1.989	155.35	50.00	102.00	32.83
		310.70	100.00	198.00	63.72
		621.40	200.00	370.00	119.08
E5#1	1.984	145.50	50.00	87.00	28.14
		309.00	100.00	194.00	62.75
		618.00	200.00	369.00	119.36
E6#2	1.990	155.50	50.00	83.00	26.69
		311.00	100.00	190.00	61.09
		622.00	200.00	354.00	113.82

Shear Strength (psi) = 1.77 + 0.583(Normal Stress - psi)

Angle of Surface Friction = 30.2°
Surface Cohesion = 1.77 psi

r^2 = 0.994; S_{yx} = 3.23 psi; T_{calc} = 33.699 (>>99%)

APPENDIX A (Continued)

Table A2. Direct Shear Test Results (Con't)

Sample Ident.	Sample Diameter (in.)	Normal Load (lb)	Normal Stress (psi)	Shear Force (lb)	Shear Stress (psi)
Detail Line "F", Tmp - Middle Pyroclastic Unit					
F1#2	1.962	151.15	50.00	95.00	31.42
		302.30	100.00	183.00	60.53
		604.60	200.00	350.00	115.77
F2#1	1.992	155.85	50.00	89.00	28.56
		311.70	100.00	181.00	58.08
		623.40	200.00	340.00	109.10
F4#1	1.946	148.70	50.00	93.00	31.27
		297.40	100.00	187.00	62.87
		594.80	200.00	374.00	125.75

Shear Strength (psi) = 2.23 + 0.575(Normal Stress - psi)

Angle of Surface Friction = 29.9°
Surface Cohesion = 2.23 psi

$r^2 = 0.986$; $S_{yx} = 4.79$ psi; $T_{calc} = 22.434$ (>>99%)

Detail Lines "E" and "F", Tmp - Middle Pyroclastic Unit

Shear Strength (psi) = 2.00 + 0.578(Normal Stress - psi)

Angle of Surface Friction = 30.0°
Surface Cohesion = 2.00 psi

$r^2 = 0.990$; $S_{yx} = 3.83$ psi; $T_{calc} = 39.927$ (>>99%)

APPENDIX A (Continued)

Table A2. Direct Shear Test Results (Con't)

Sample Ident.	Sample Diameter (in.)	Normal Load (lb)	Normal Stress (psi)	Shear Force (lb)	Shear Stress (psi)
		Detail Line "G", Trp - Rhyolite Porphyry			
G#A	1.962	151.15	50.00	95.00	32.60
		302.30	100.00	183.00	63.20
		604.60	200.00	350.00	130.30
G#B	1.992	155.85	50.00	89.00	29.60
		311.70	100.00	181.00	56.60
		623.40	200.00	340.00	114.80
G#C	1.946	148.70	50.00	93.00	30.00
		297.40	100.00	187.00	58.70
		594.80	200.00	374.00	120.40

Shear Strength (psi) = 1.32 + 0.588(Normal Stress - psi)

Angle of Surface Friction = 30.5°
Surface Cohesion = 1.32 psi

r^2 = 0.994; S_{yx} = 3.27 psi; T_{calc} = 33.271 (>>99%)

Sample Ident.	Sample Diameter (in.)	Normal Load (lb)	Normal Stress (psi)	Shear Force (lb)	Shear Stress (psi)
		Detail Line "I", Tql - Quartz Latite Porphyry			
I#A	1.962	151.15	50.00	95.00	32.90
		302.30	100.00	183.00	60.90
		604.60	200.00	350.00	122.40
I#B	1.992	155.85	50.00	89.00	31.70
		311.70	100.00	181.00	56.50
		623.40	200.00	340.00	113.70
I#C	1.946	148.70	50.00	93.00	30.80
		297.40	100.00	187.00	58.30
		594.80	200.00	374.00	122.50

Shear Strength (psi) = -0.43 + 0.610(Normal Stress - psi)

Angle of Surface Friction = 31.3°
Surface Cohesion = 0.00 psi

r^2 = 0.988; S_{yx} = 4.72 psi; T_{calc} = 24.144 (>>99%)

APPENDIX A (Continued)

Table A3. Density Measurements

Sample Ident.	Density (PCF)	Sample Ident.	Density (PCF)
Detail Lines "A" and "H"		Detail Lines "B" and "C"	
A3#2	147.4	B1#3	158.2
A3#4	144.8	B3#3	154.1
A3#3	144.2	B1#2	154.4
A1#2	129.4	B3#1	153.4
A3#1	142.9	B1#4	145.1
A4#3	148.6	B1#7	157.7
A2#1	146.9	B3#2	153.9
A1#1	131.5	B1#5	152.1
Mean	142.0		153.6
Standard Deviation	7.4		4.0
Detail Line "D"		Detail Line "E"	
D5#2	153.9	E3#2	150.6
D5#1	156.2	E4#3	142.7
D2#3	151.0	E3#1	142.9
D1#2	151.9	E5#3	143.5
D2#1	152.4	E2#2	146.0
D1#3	153.0	E2#1	141.6
D2#2	148.5	E1#1	147.9
D1#1	152.5	E4#1	144.4
		E10#1	150.7
		E11#1	138.5
		E10#3	152.6
Mean	152.4		145.6
Standard Deviation	2.2		4.4
Detail Line "F"		Detail Line "F"	
F2#2	153.1	F12#2	142.2
F3#4	145.8	F13#1	147.4
F2#3	152.4	F11#1	151.8
F3#1	144.6	F12#1	141.3
F3#2	141.8	F10#1	142.1
F5#1	155.5		
F1#1	152.7		
F3#3	143.1		
Mean			147.2
Standard Deviation			5.2

APPENDIX A (Continued)

Table A3. Density Measurements (Con't)

Sample Ident.	Density (PCF)	Sample Ident.	Density (PCF)
Detail Line "G"		Detail Line "I"	
G#3	125.5	I#7	152.9
G#6	140.3	I#8	150.6
G#1	142.9	I#1	154.5
G#2	137.8	I#2	154.1
G#4	149.0	I#3	144.8
G#5	148.9	I#4	153.6
G#7	142.2	I#5	148.3
G#8	138.7	I#6	149.9
Mean	140.7		151.1
Standard Deviation	7.4		3.4

Figure A1. Compression test plot.

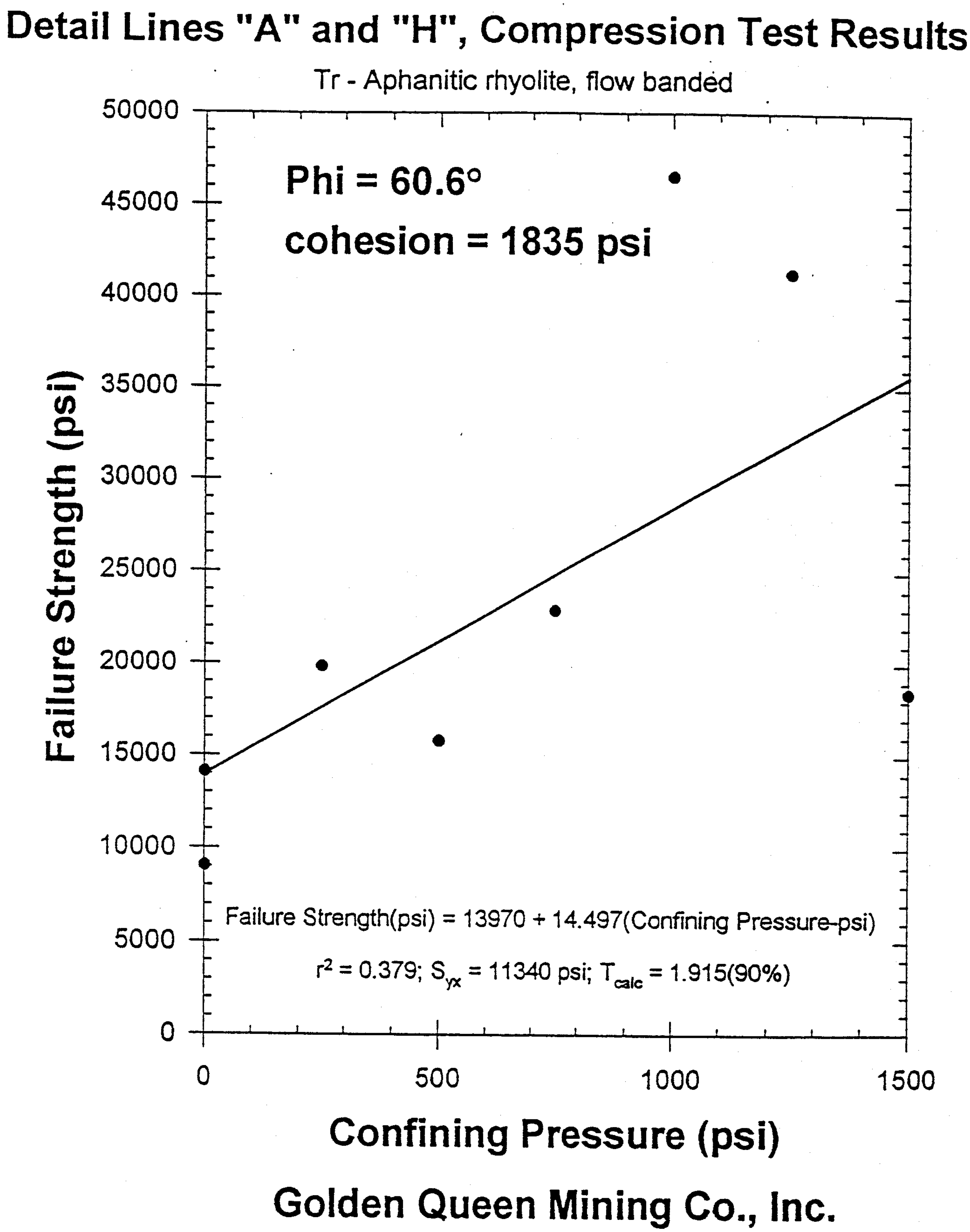


Figure A2. Direct shear test plot.

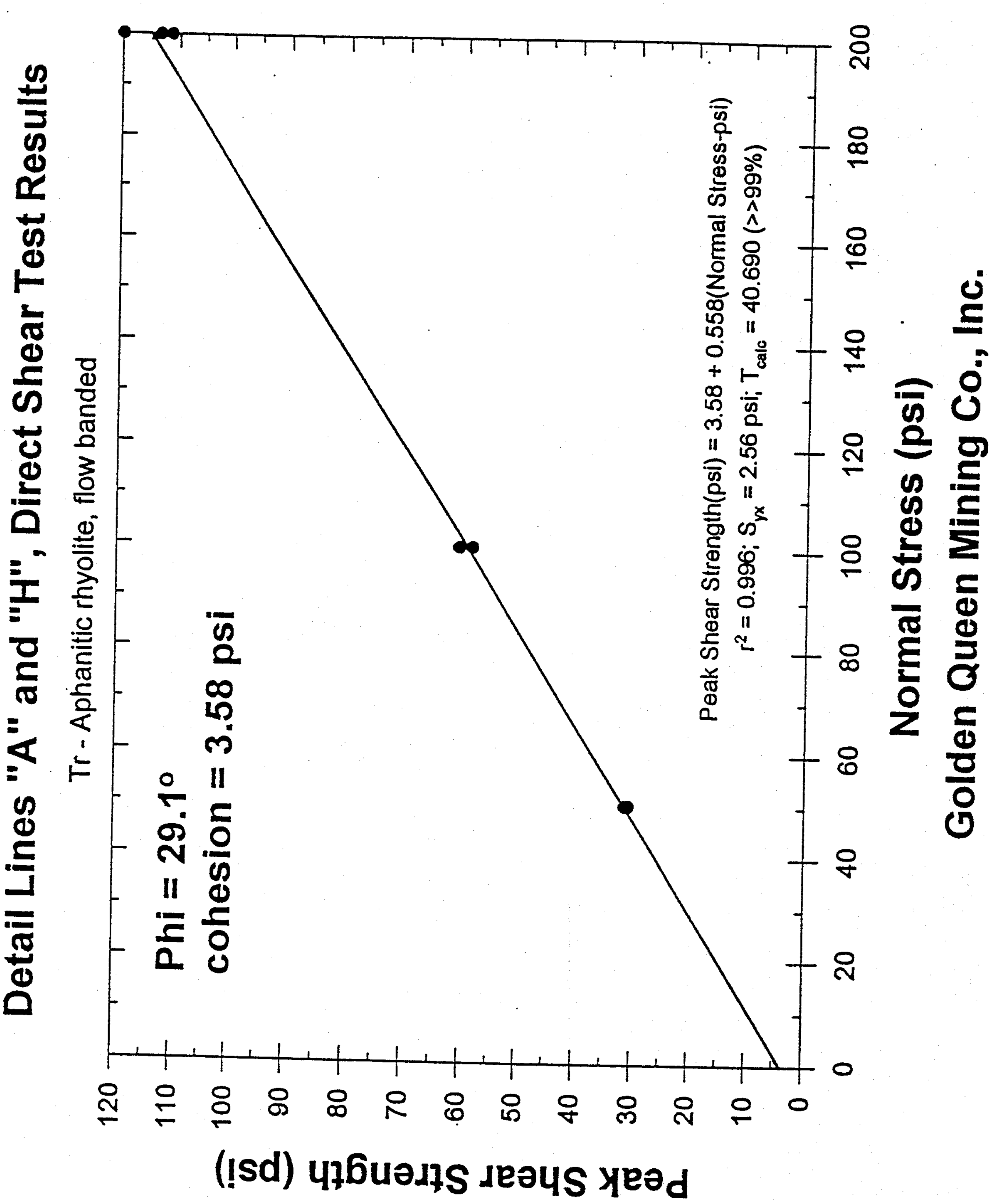


Figure A3. Compression test plot.

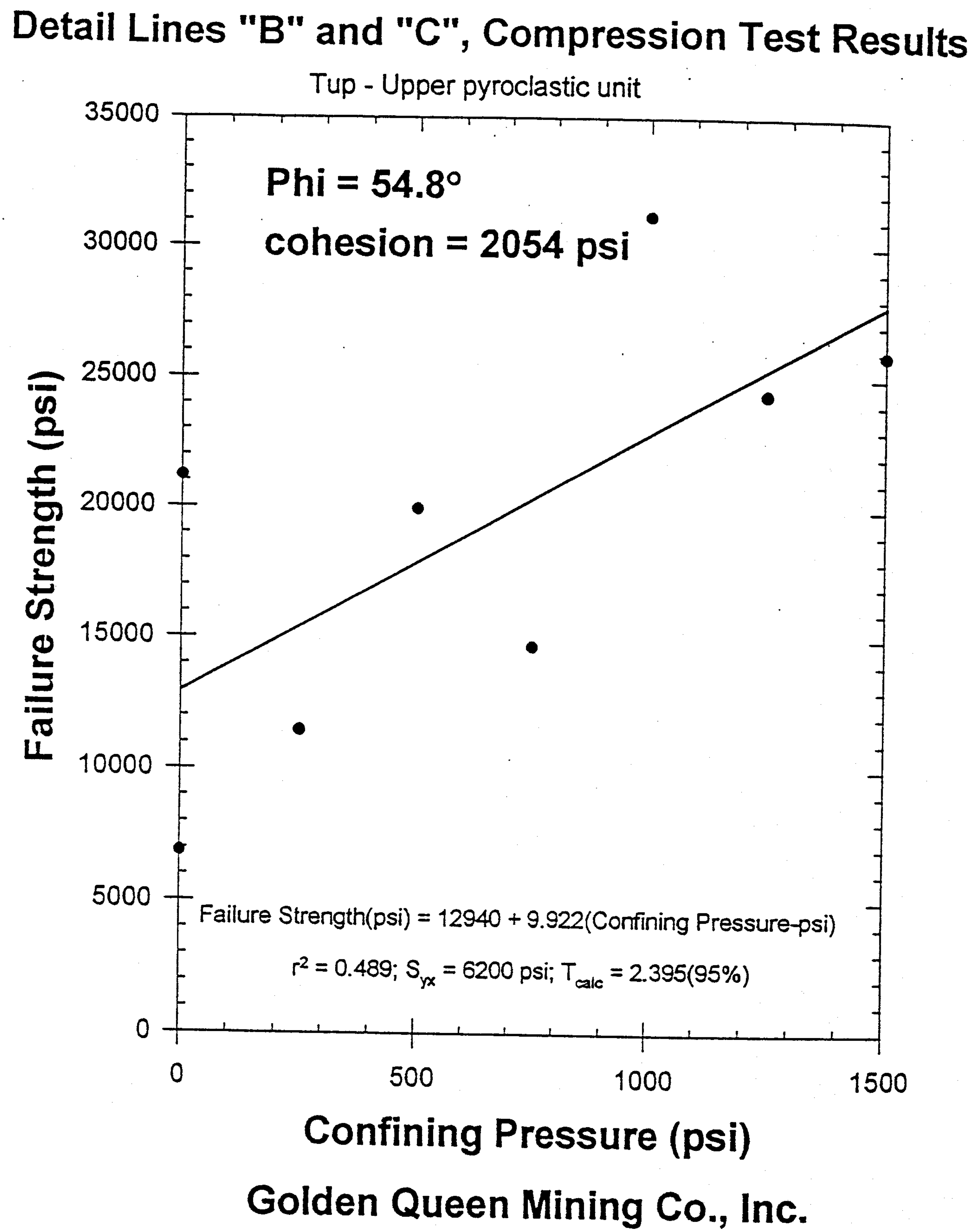


Figure A4. Direct shear test plot.

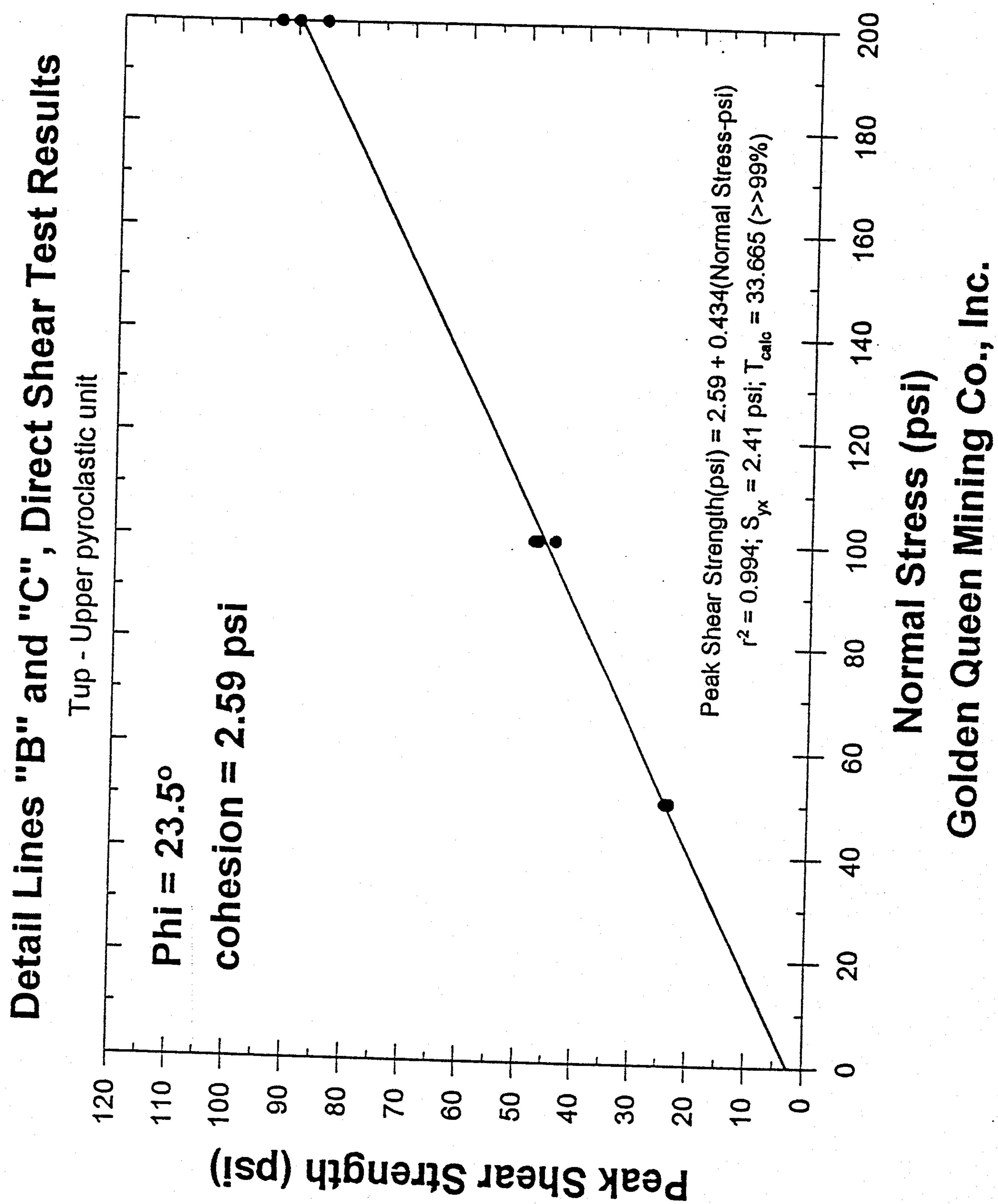


Figure A5. Compression test plot.

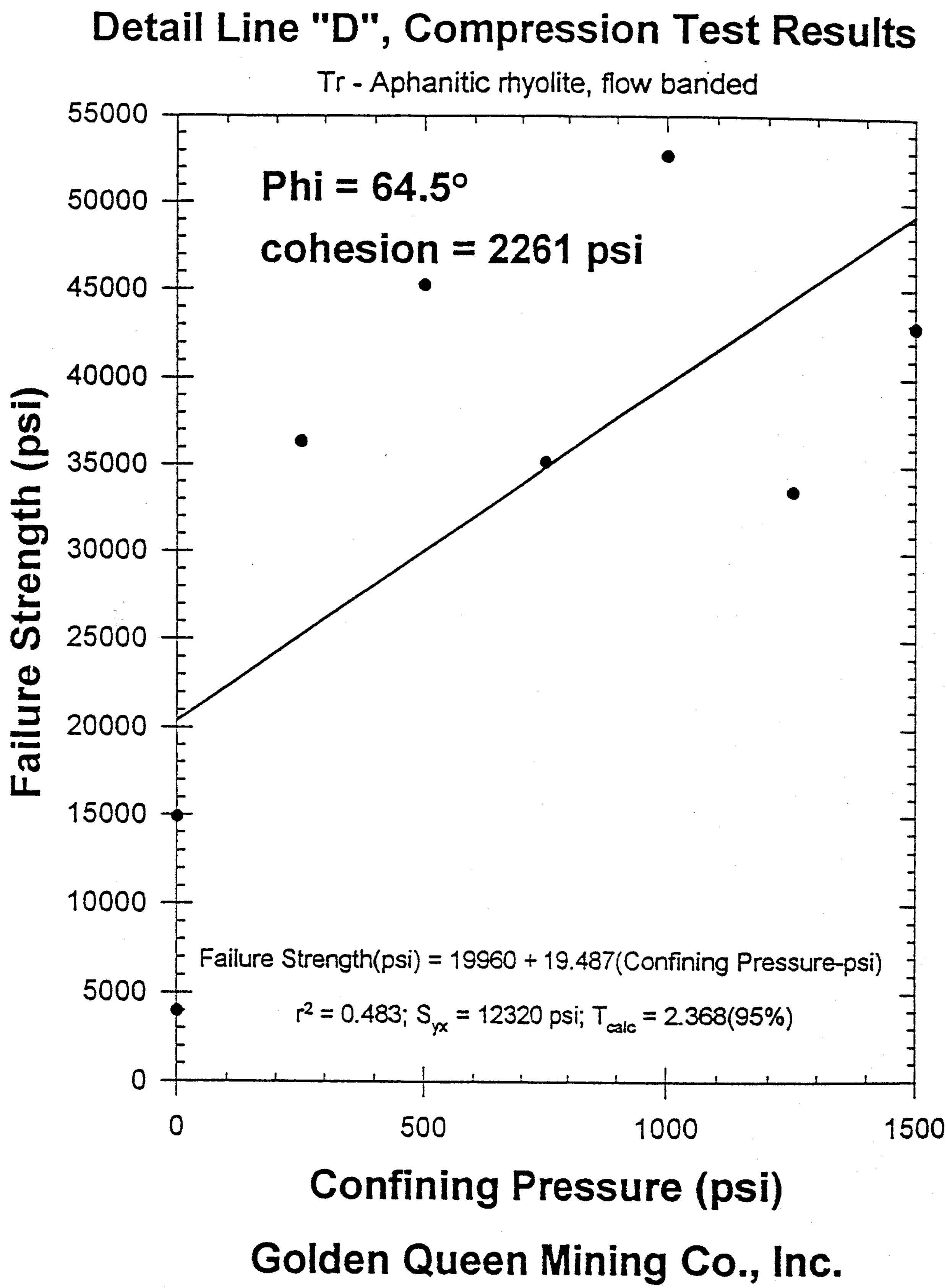


Figure A6. Direct shear test plot.

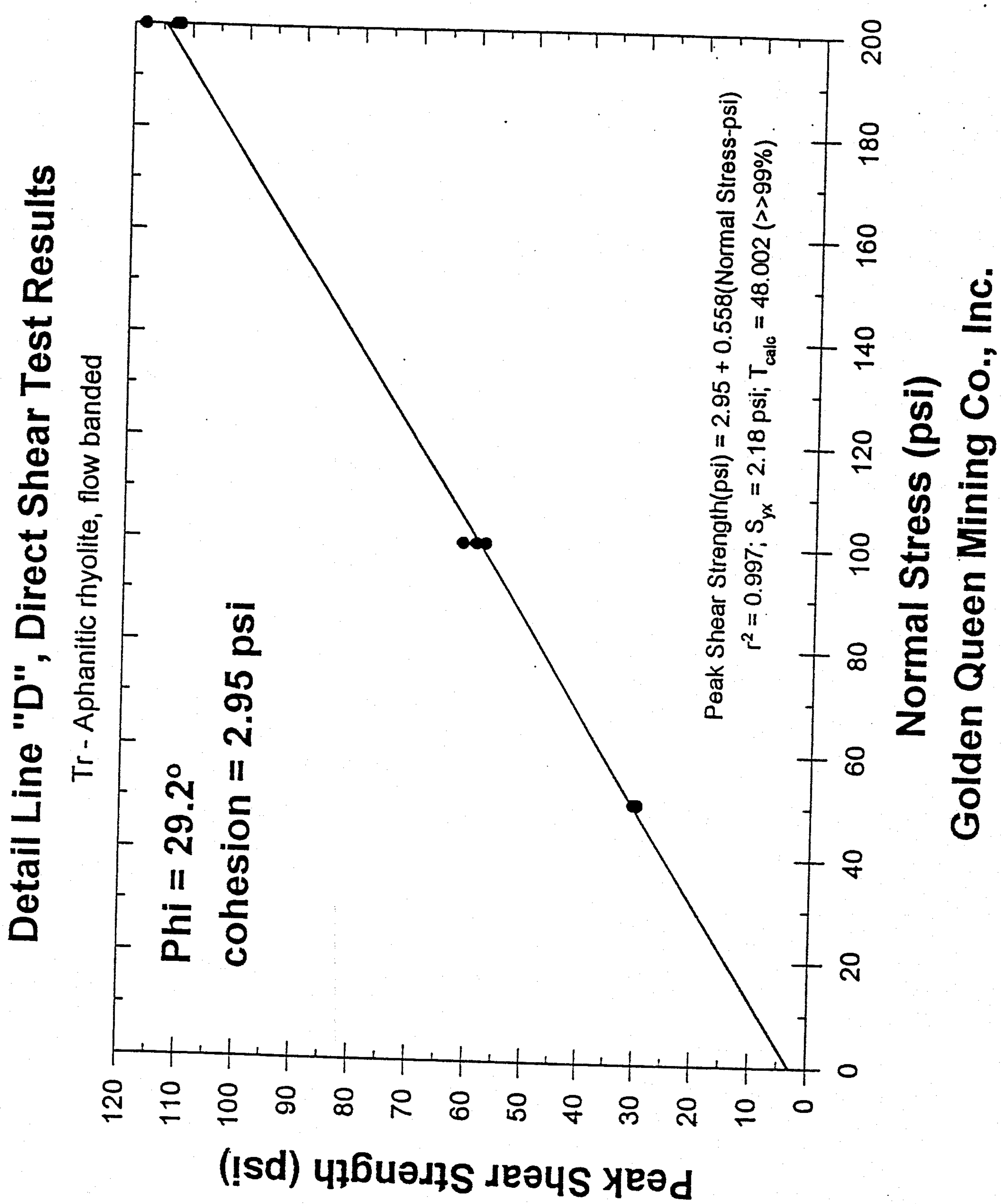


Figure A7. Compression test plot.

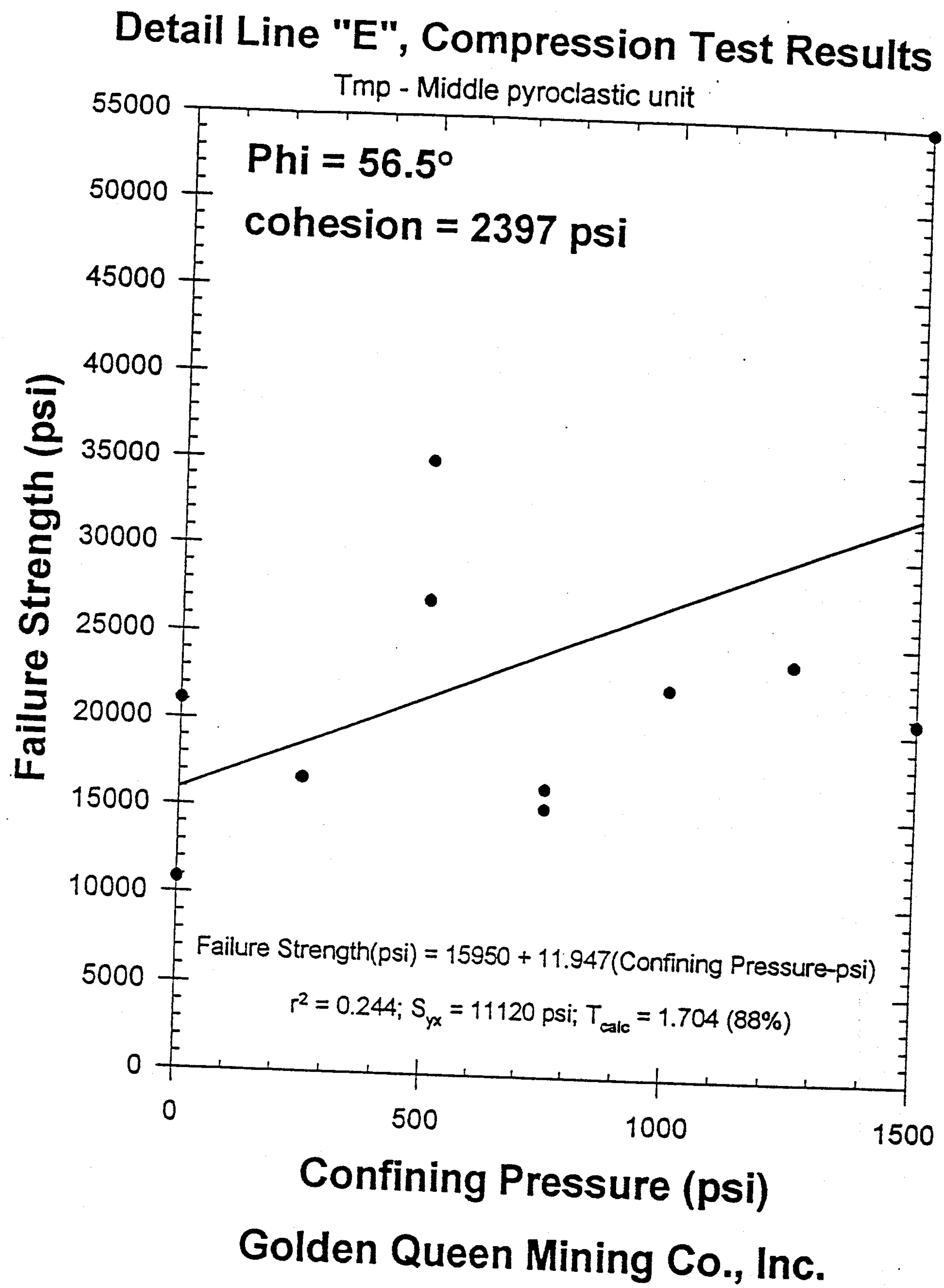


Figure A8. Direct shear test plot.

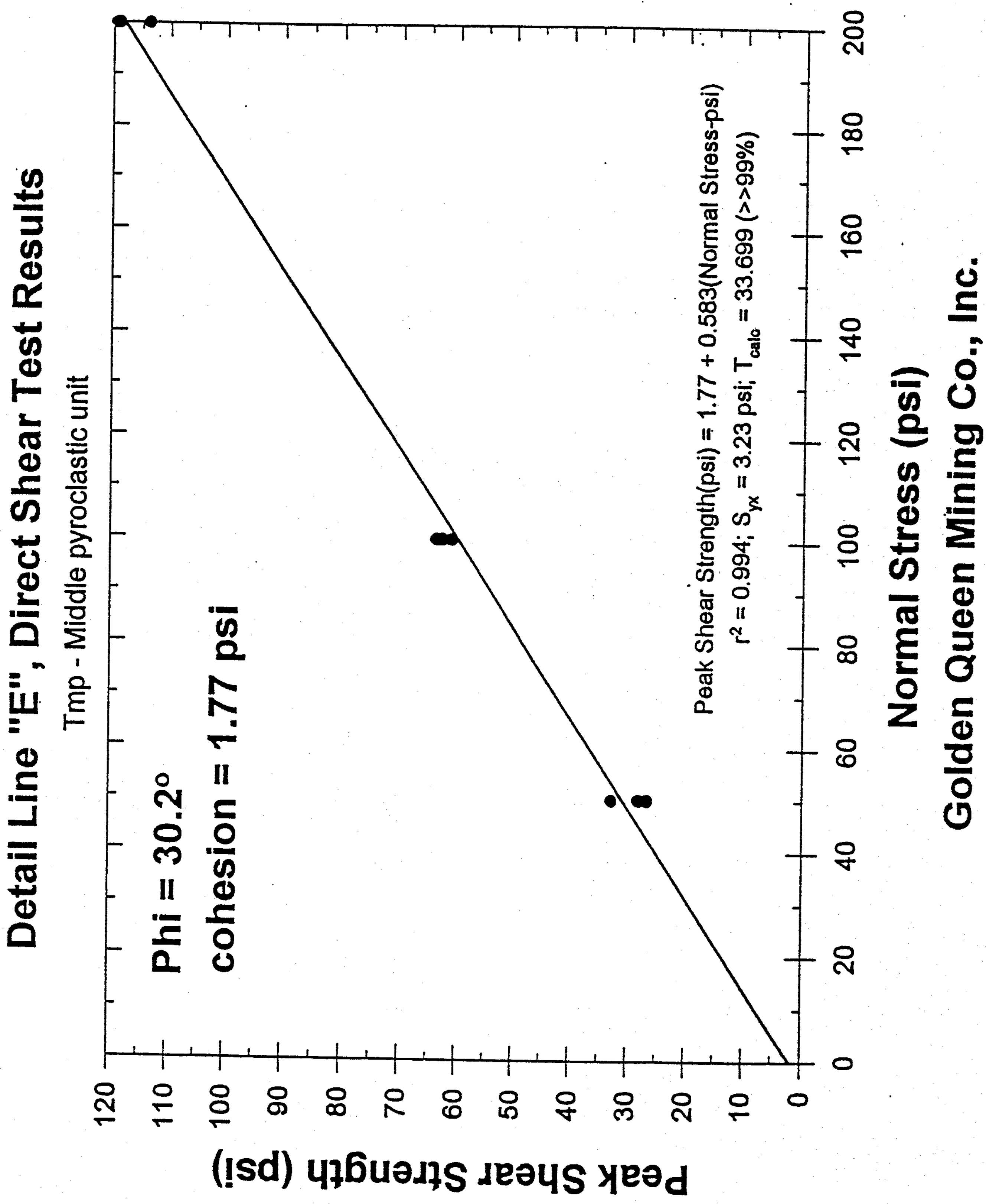


Figure A9. Compression test plot.

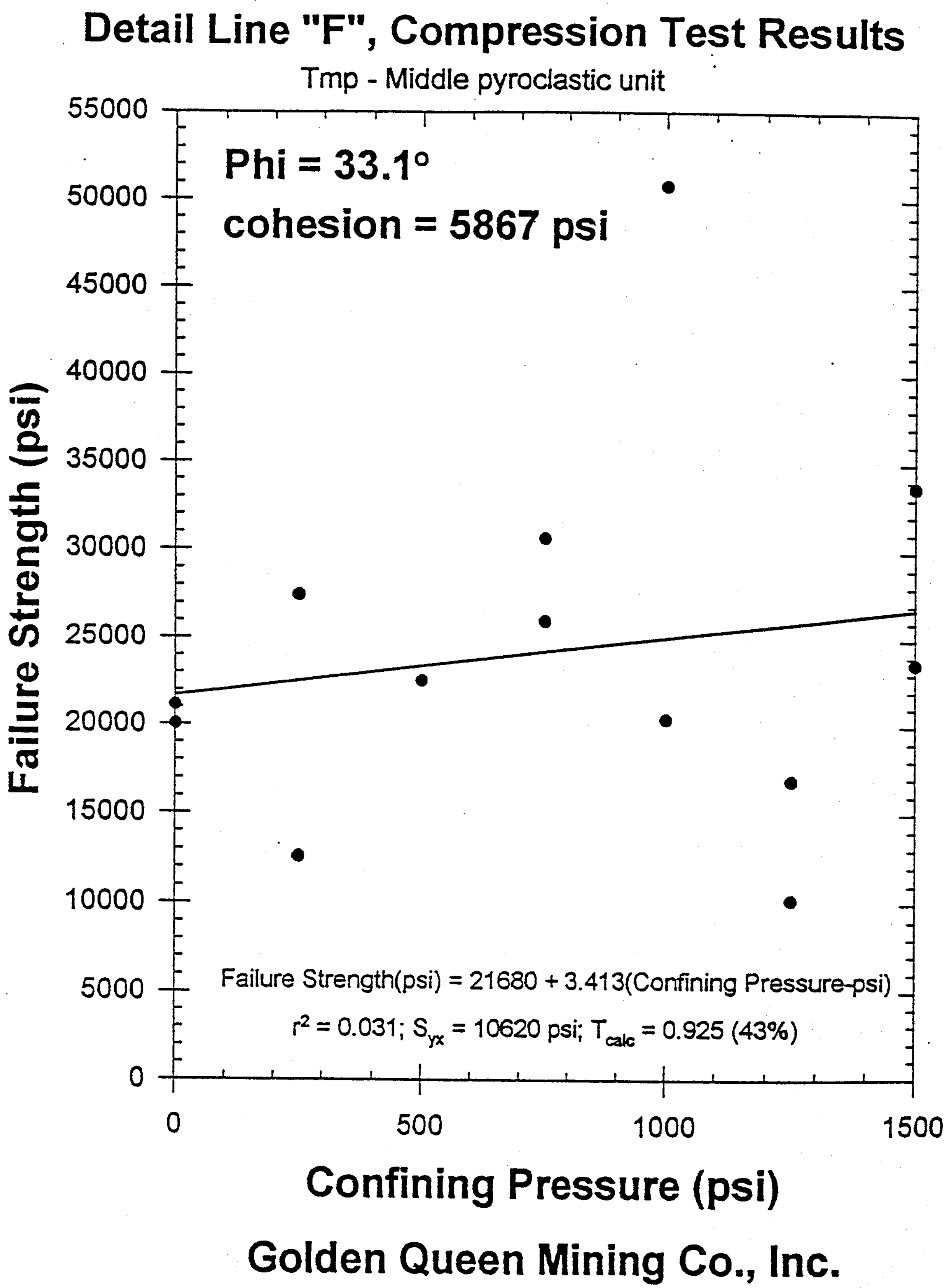


Figure A10. Direct shear test plot.

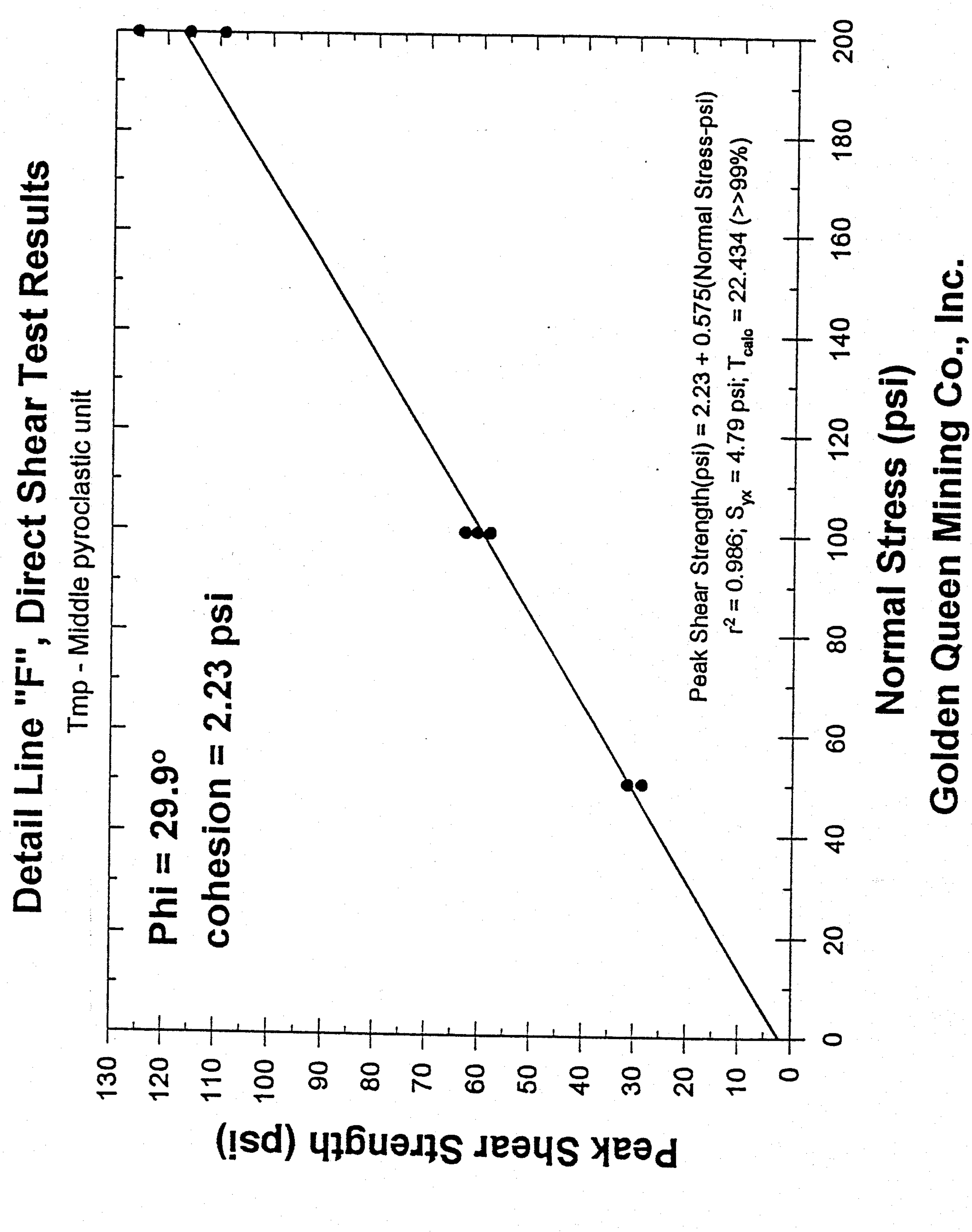


Figure A11. Compression test plot.

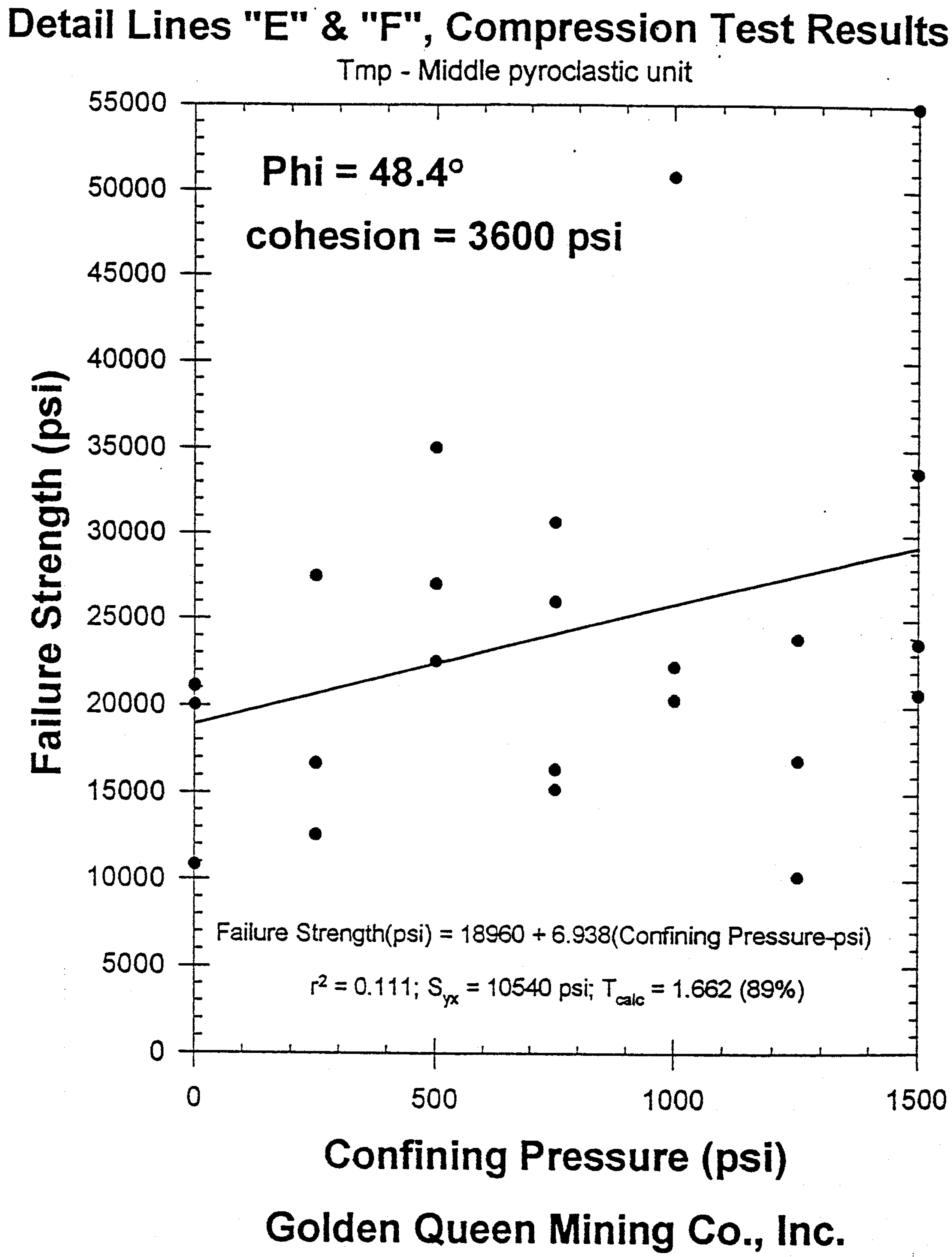


Figure A12. Direct shear test plot.

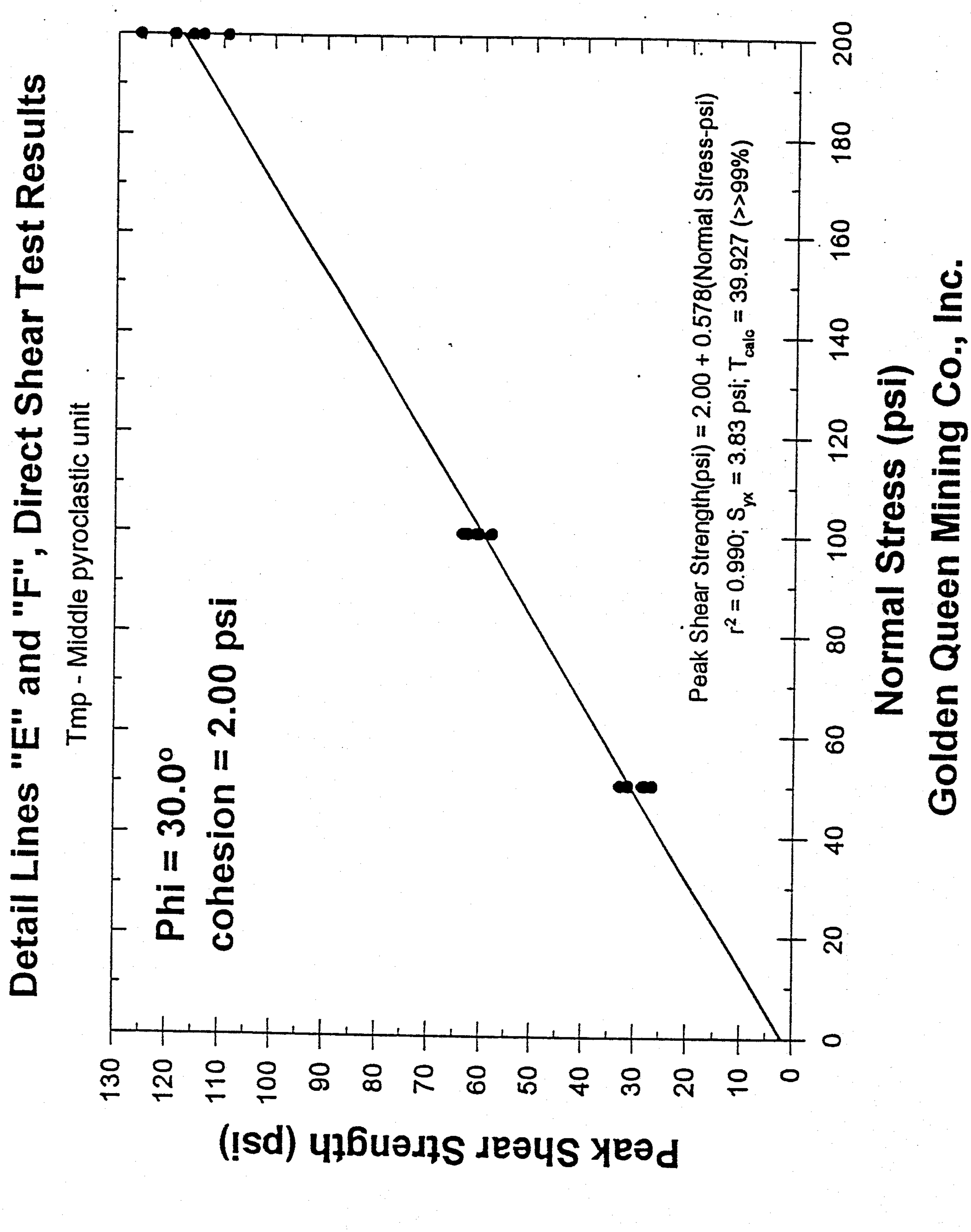


Figure A13. Compression test plot.

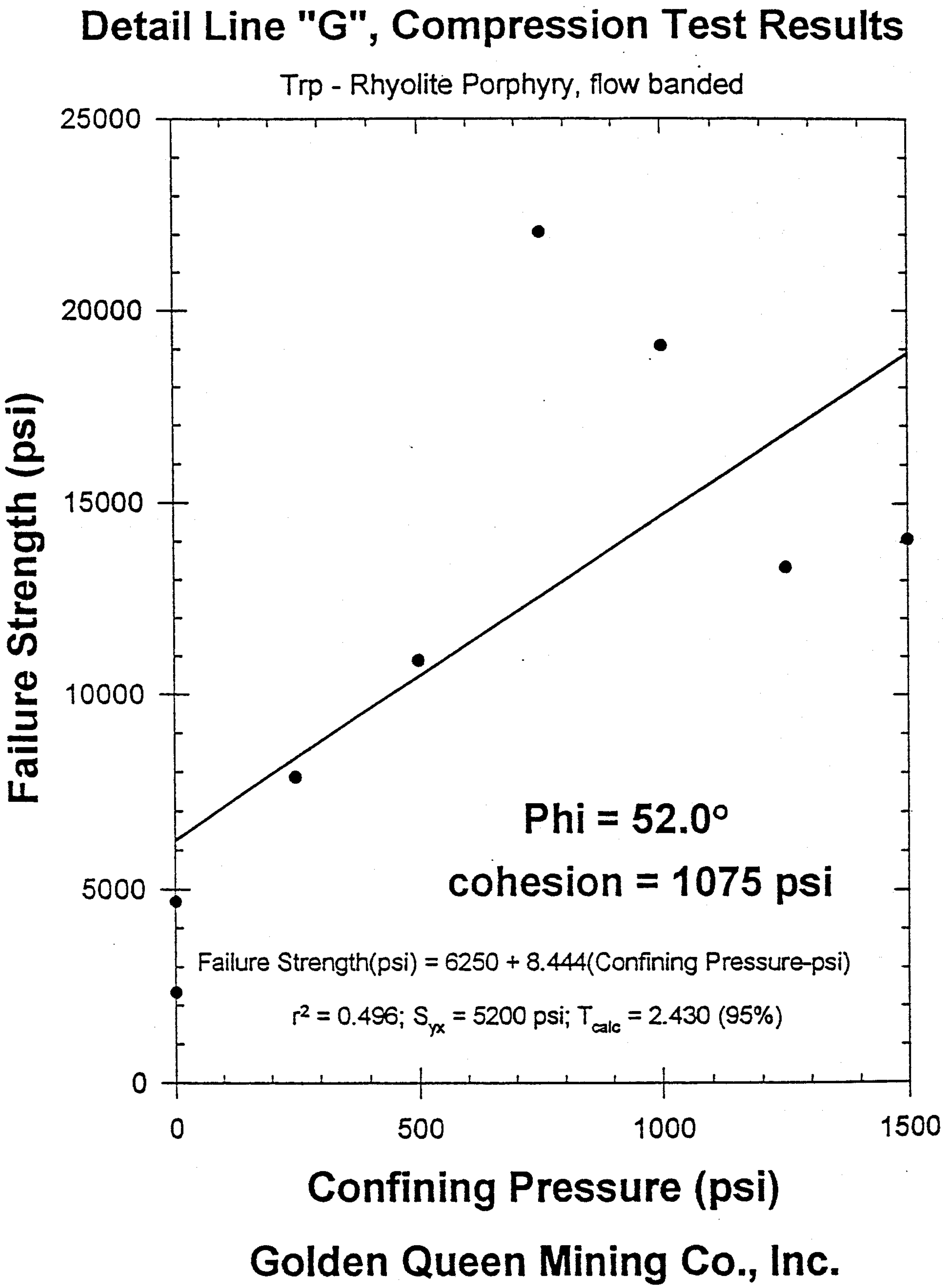


Figure A14. Direct shear test plot.

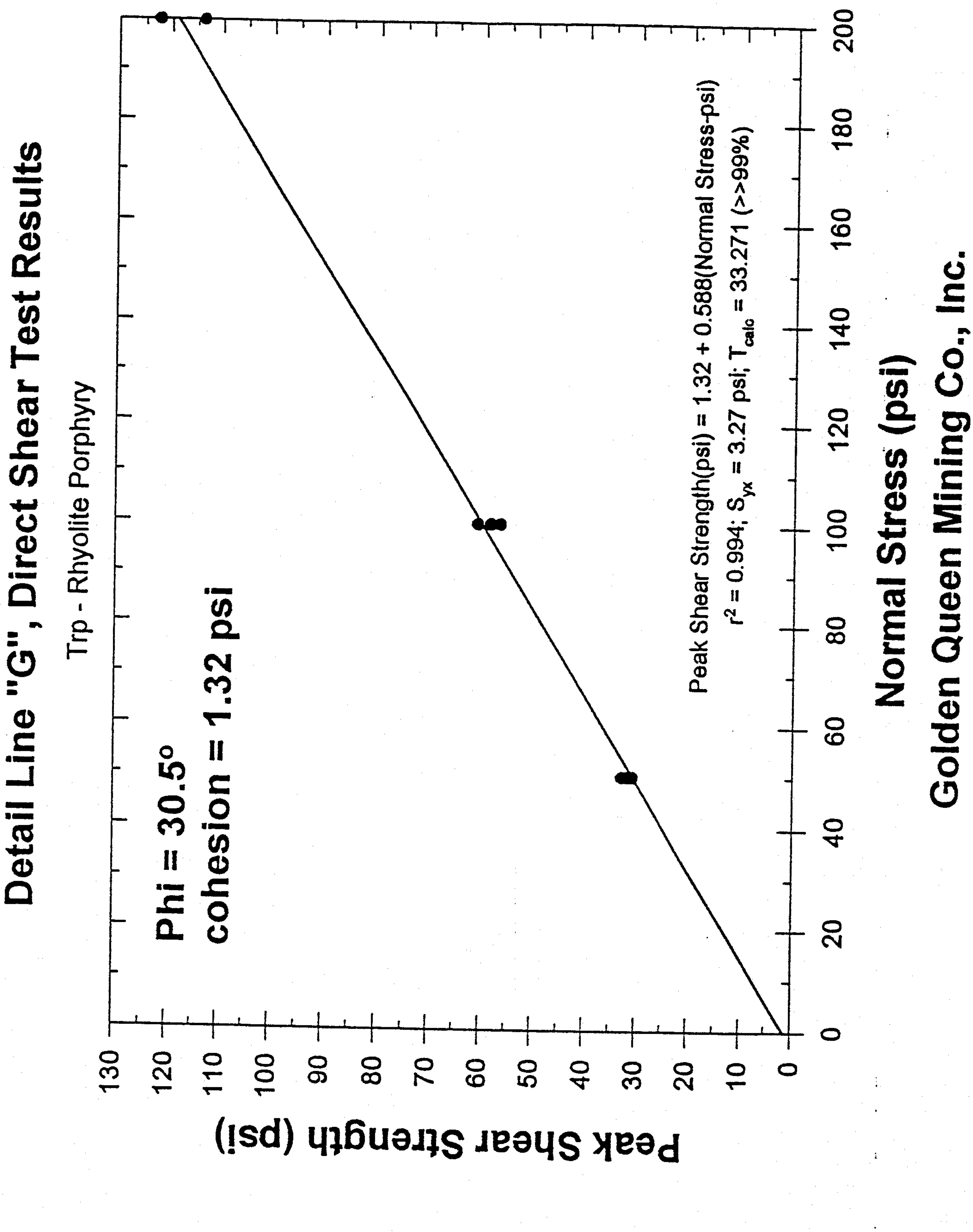


Figure A15. Compression test plot.

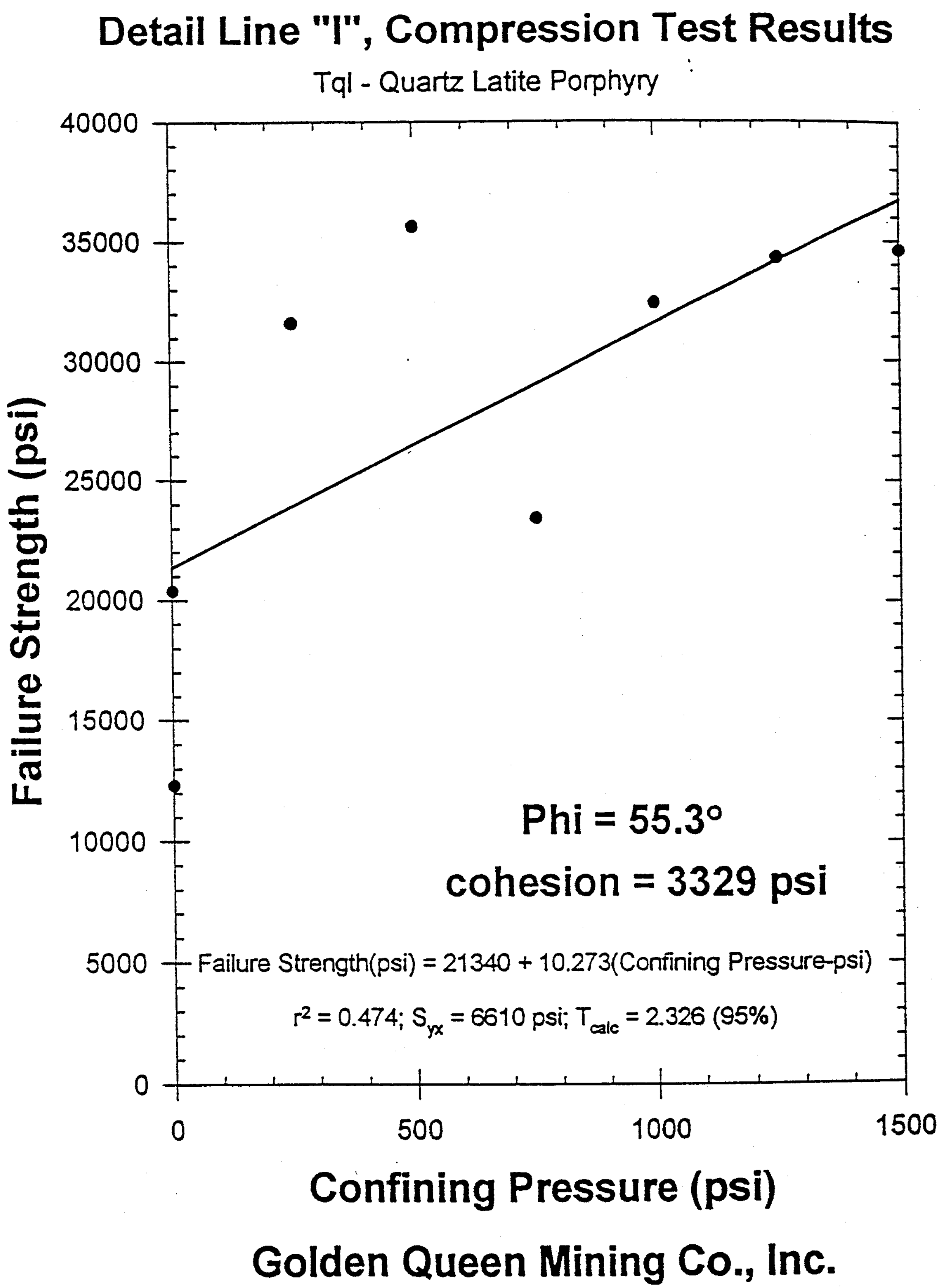
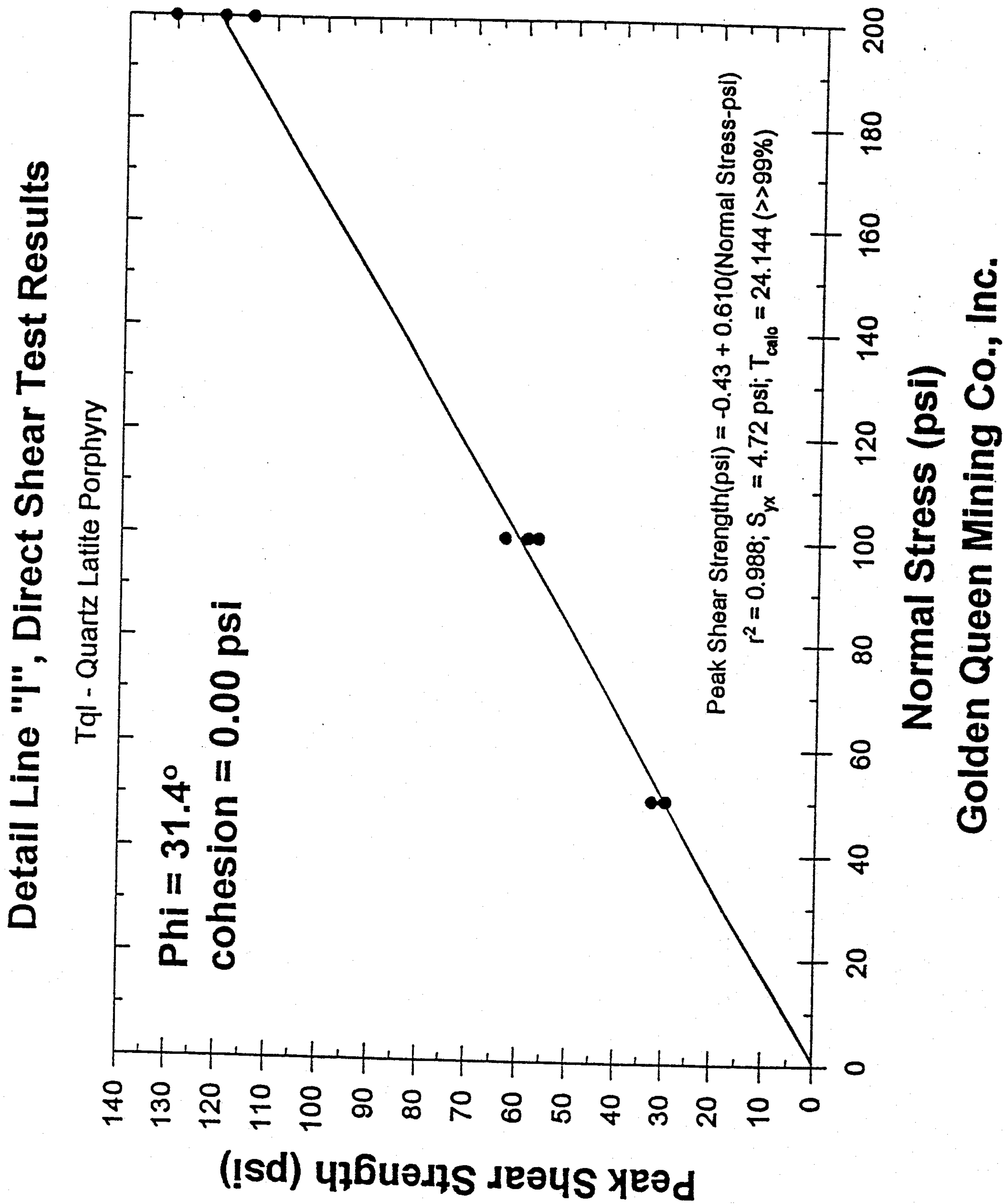


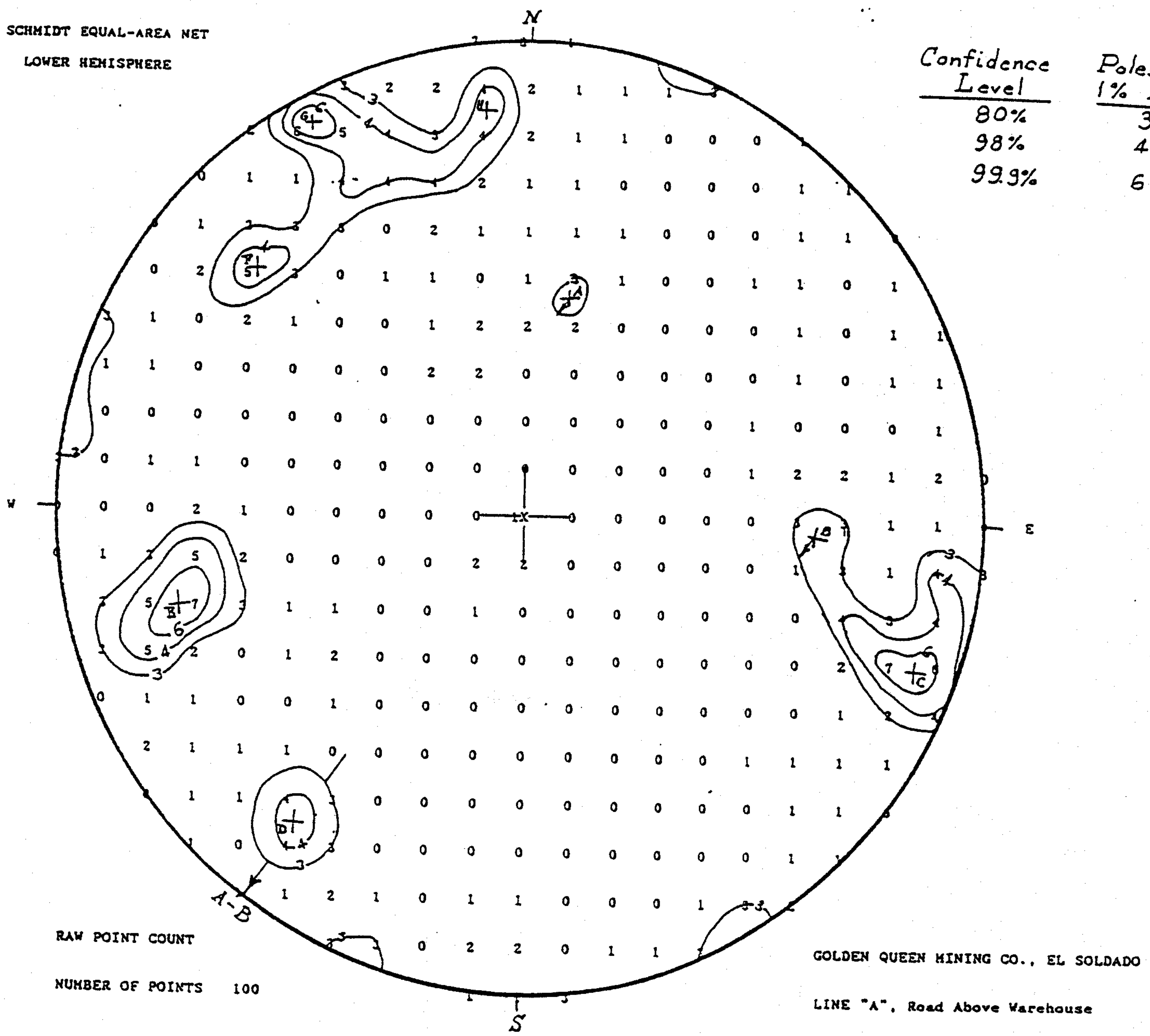
Figure A16. Direct shear test plot.



APPENDIX B

SCHMIDT EQUAL-AREA FRACTURE DATA PROJECTIONS

Figure B-1. Schmidt equal-area plot of Detail Line A fractures.



Confidence Level	Poles per 1% Area
80%	3
98%	4
99.9%	6

Figure B-2. Schmidt equal-area plot of Detail Line B fractures.

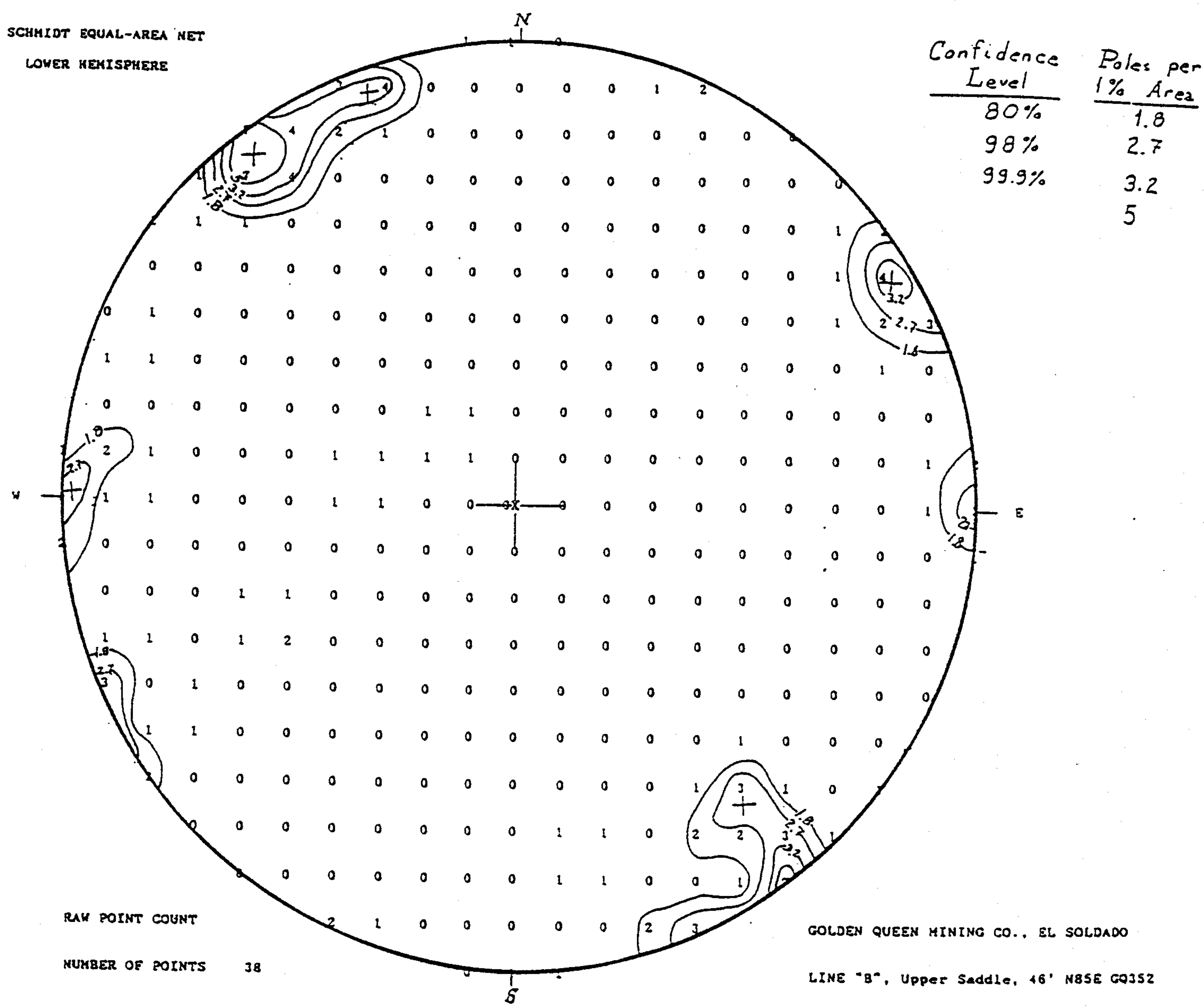


Figure B-3. Schmidt equal-area plot of Detail Line C fractures.

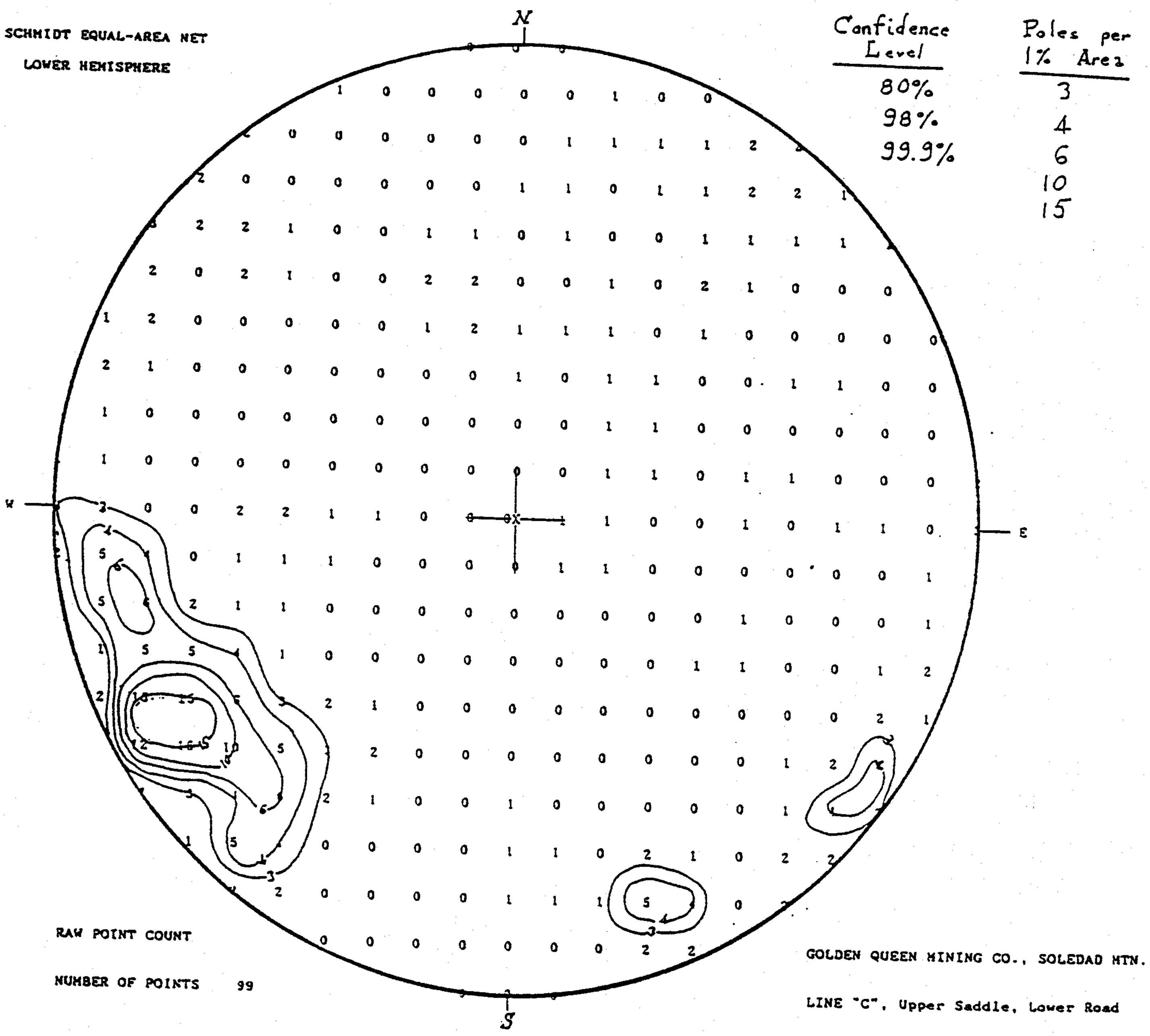
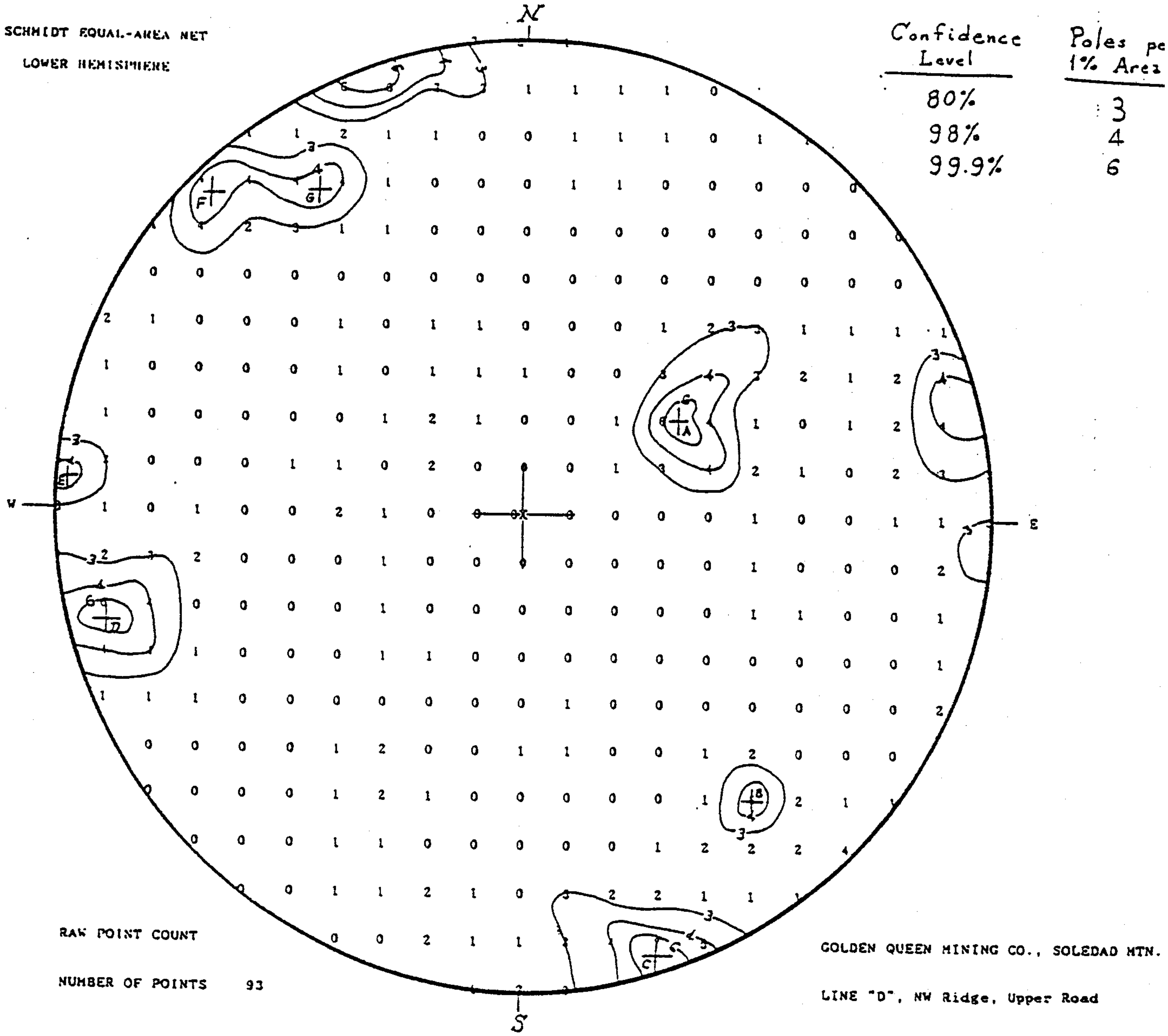


Figure B-4. Schmidt equal-area plot of Detail Line D fractures.



Confidence Level	Poles per 1% Area
80%	3
98%	4
99.9%	6

Figure B-5. Schmidt equal-area plot of Detail Line E fractures.

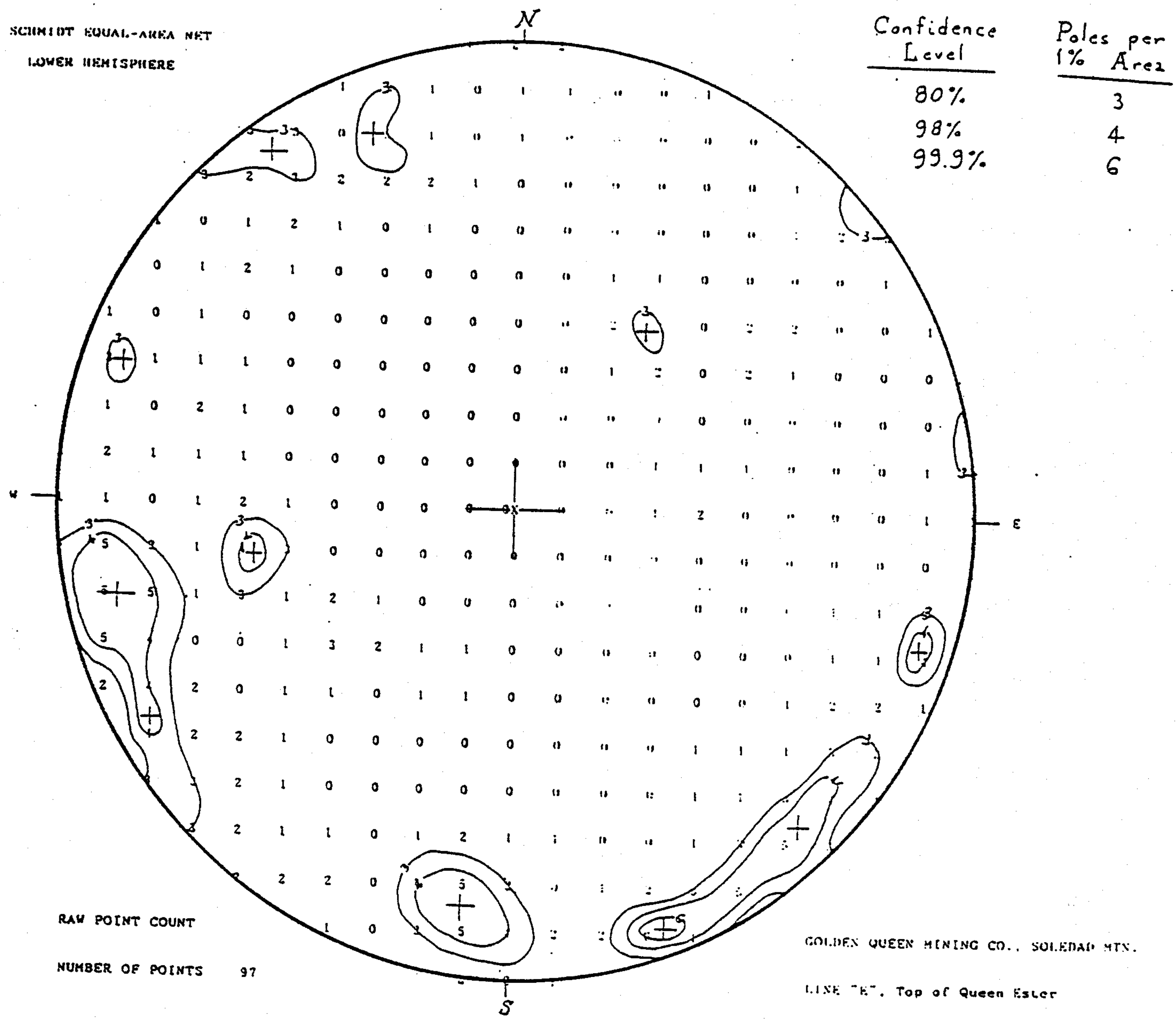


Figure B-6. Schmidt equal-area plot of Detail Line F fractures.

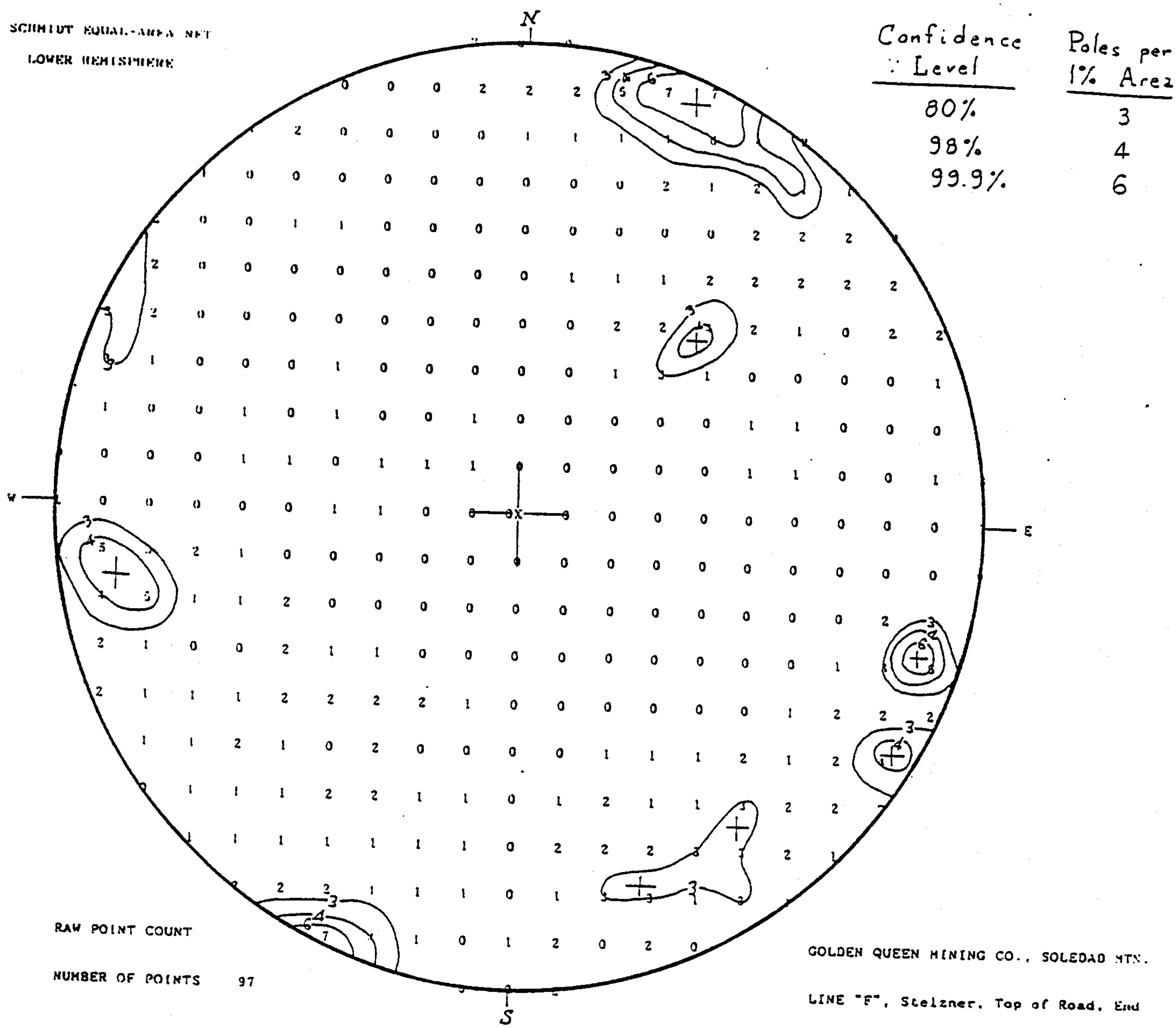


Figure B-7. Schmidt equal-area plot of Detail Line G fractures.

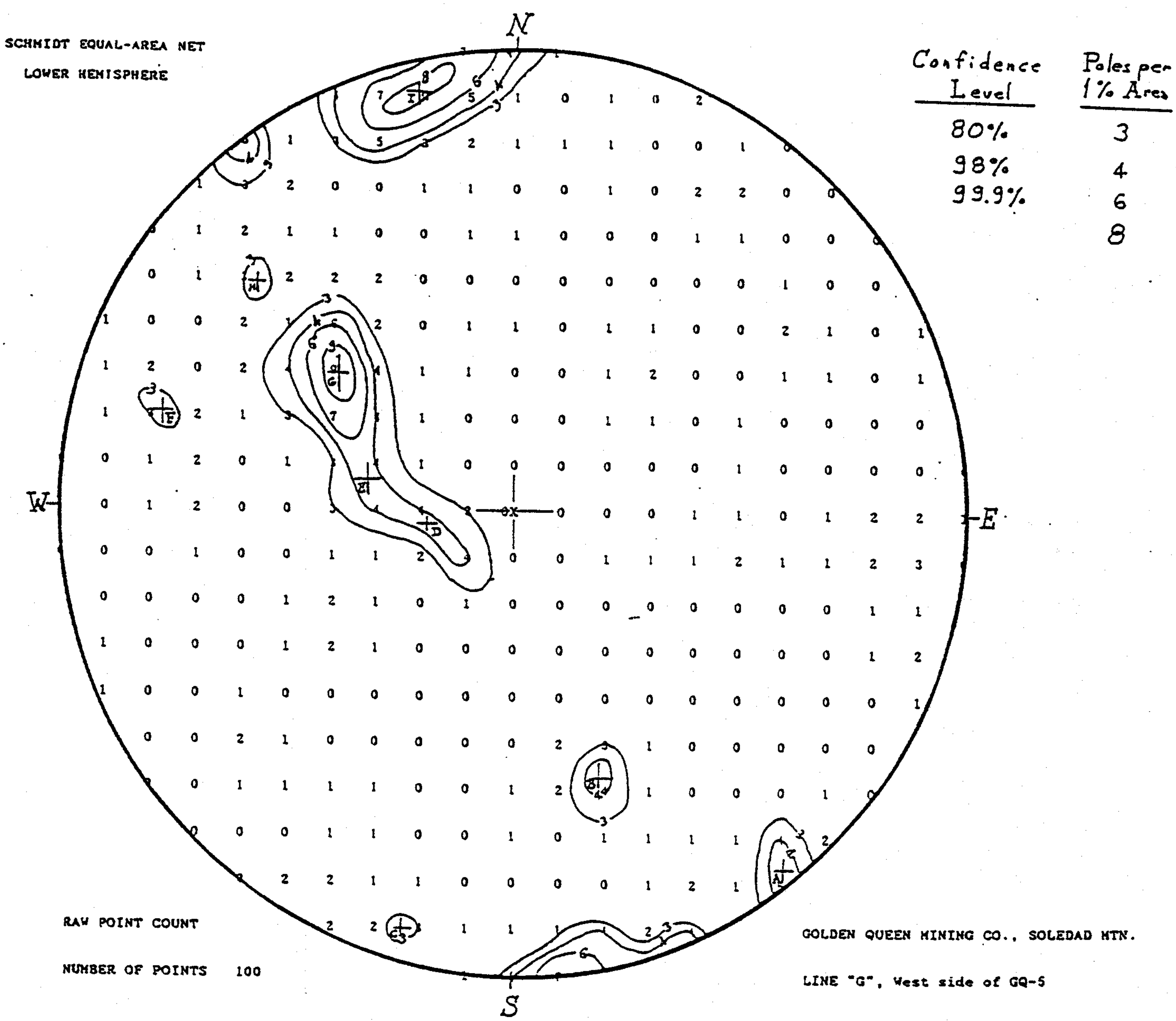


Figure B-8. Schmidt equal-area plot of Detail Line H fractures.

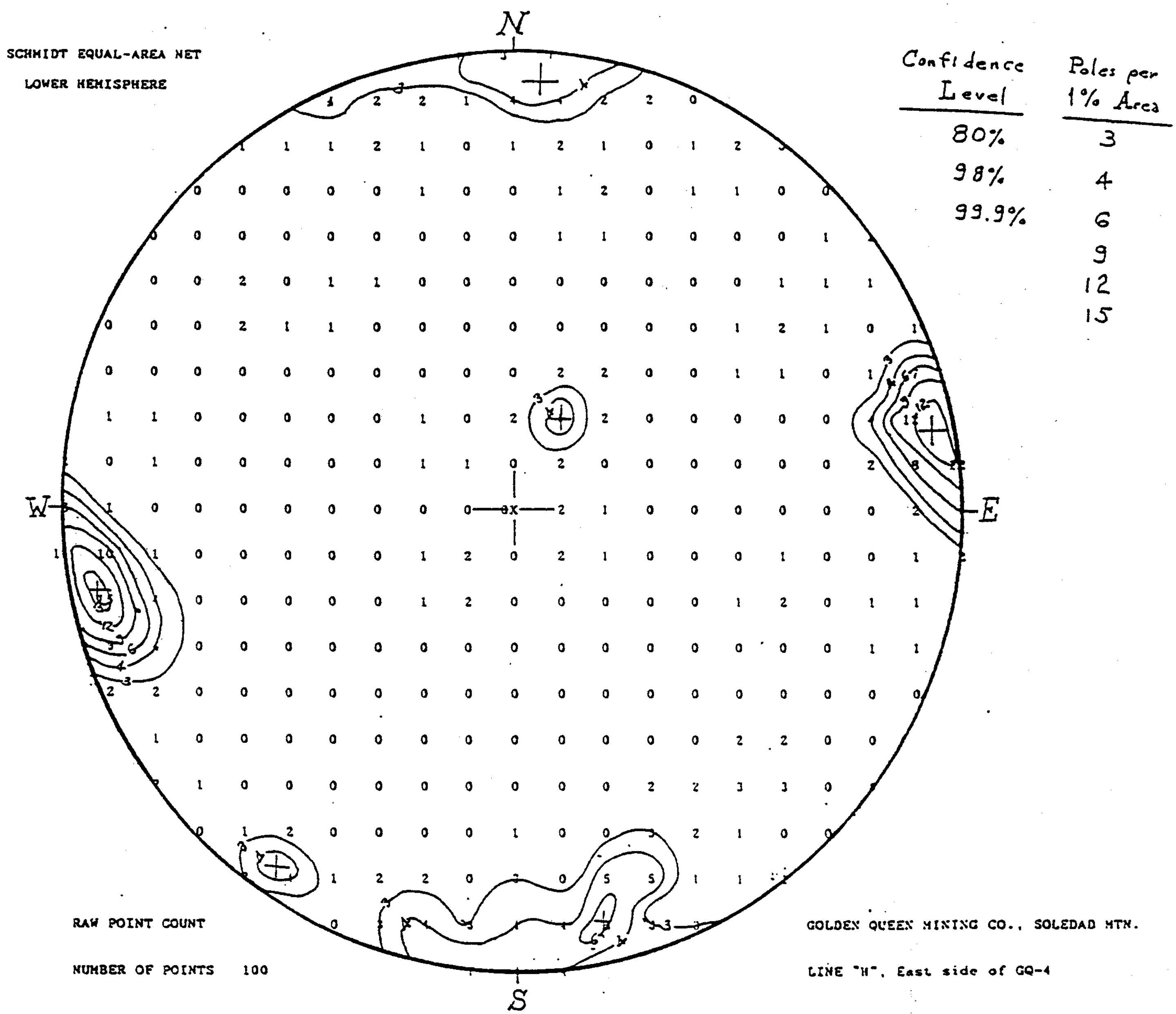


Figure B-9. Schmidt equal-area plot of Detail Line I fractures.

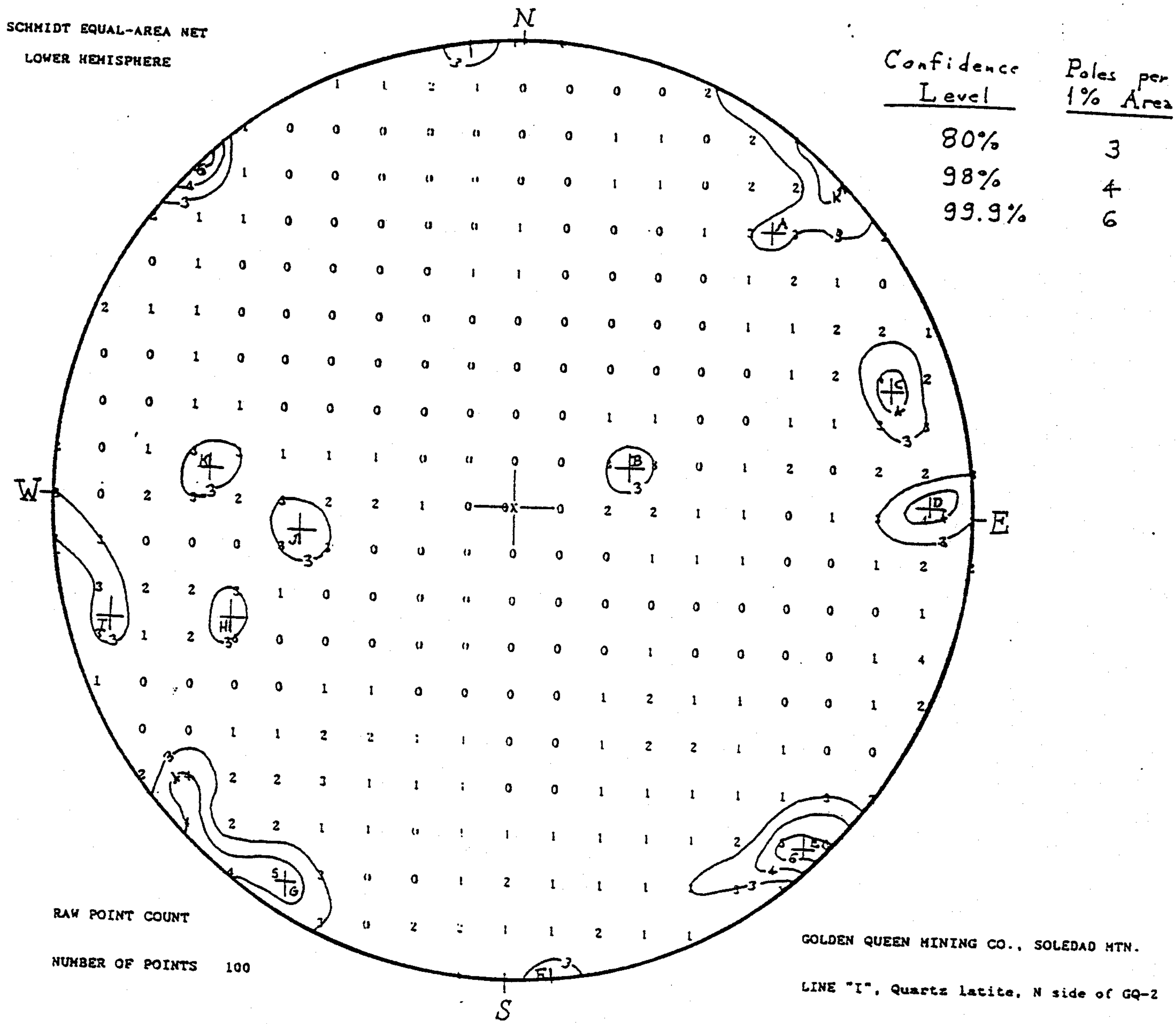


Figure B-10. Schmidt equal-area plot of Detail Lines A + H fractures.

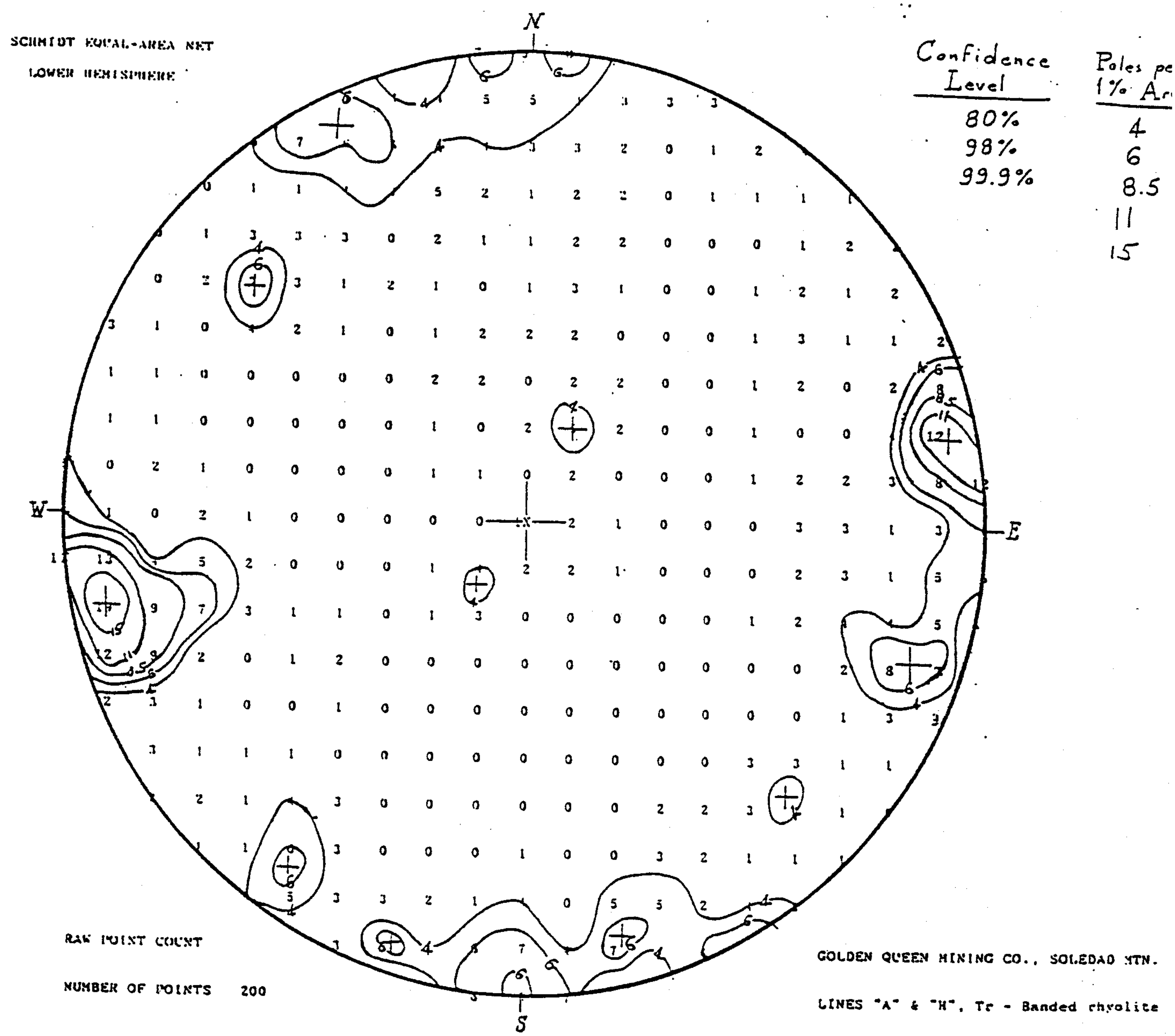
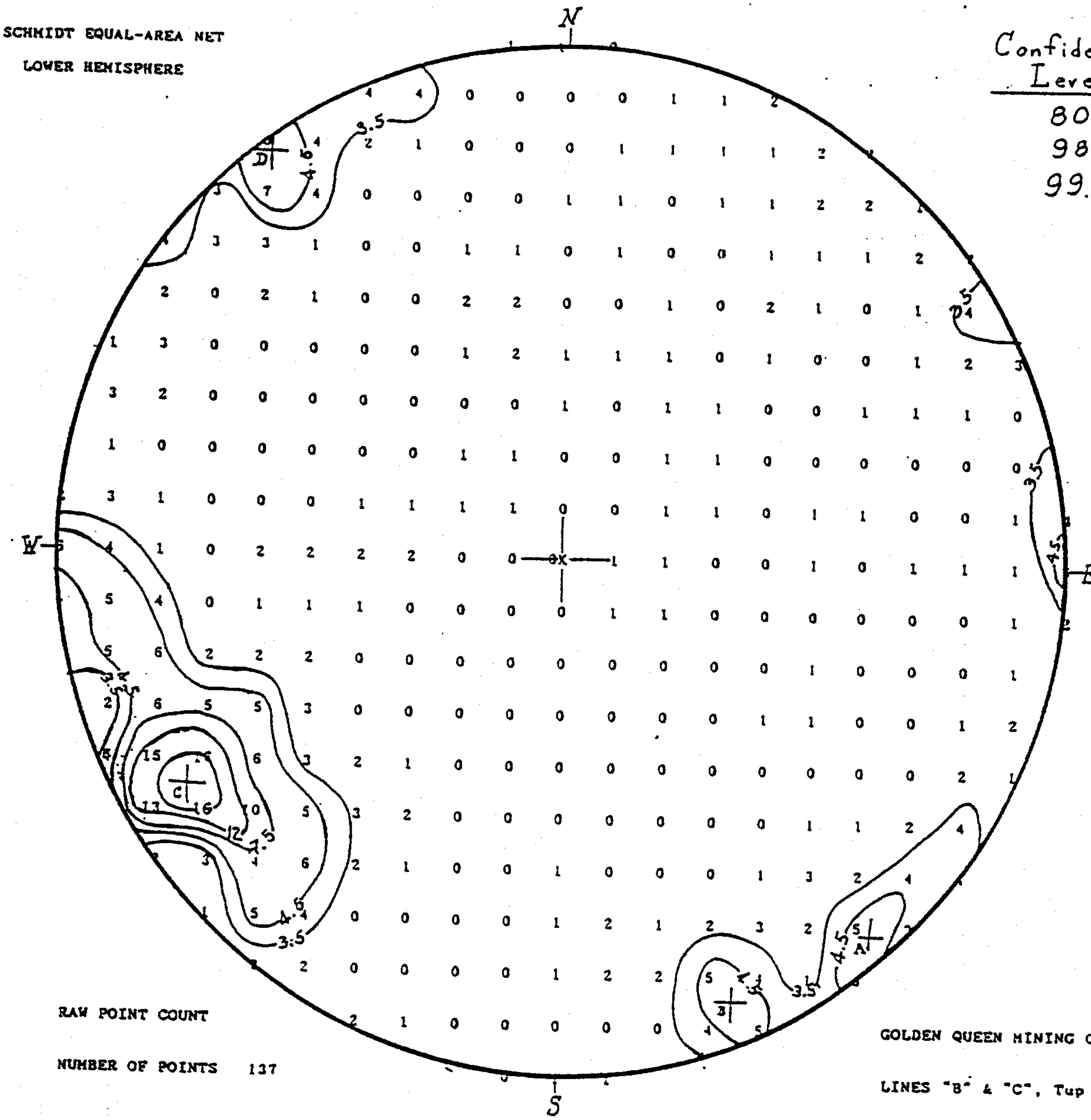


Figure B-11. Schmidt equal-area plot of Detail Lines B + C fractures.

SCHMIDT EQUAL-AREA NET
LOWER HEMISPHERE



Confidence Level	Poles per 1% Area
80%	3.5
98%	4.5
99.9%	7.5
	12
	16

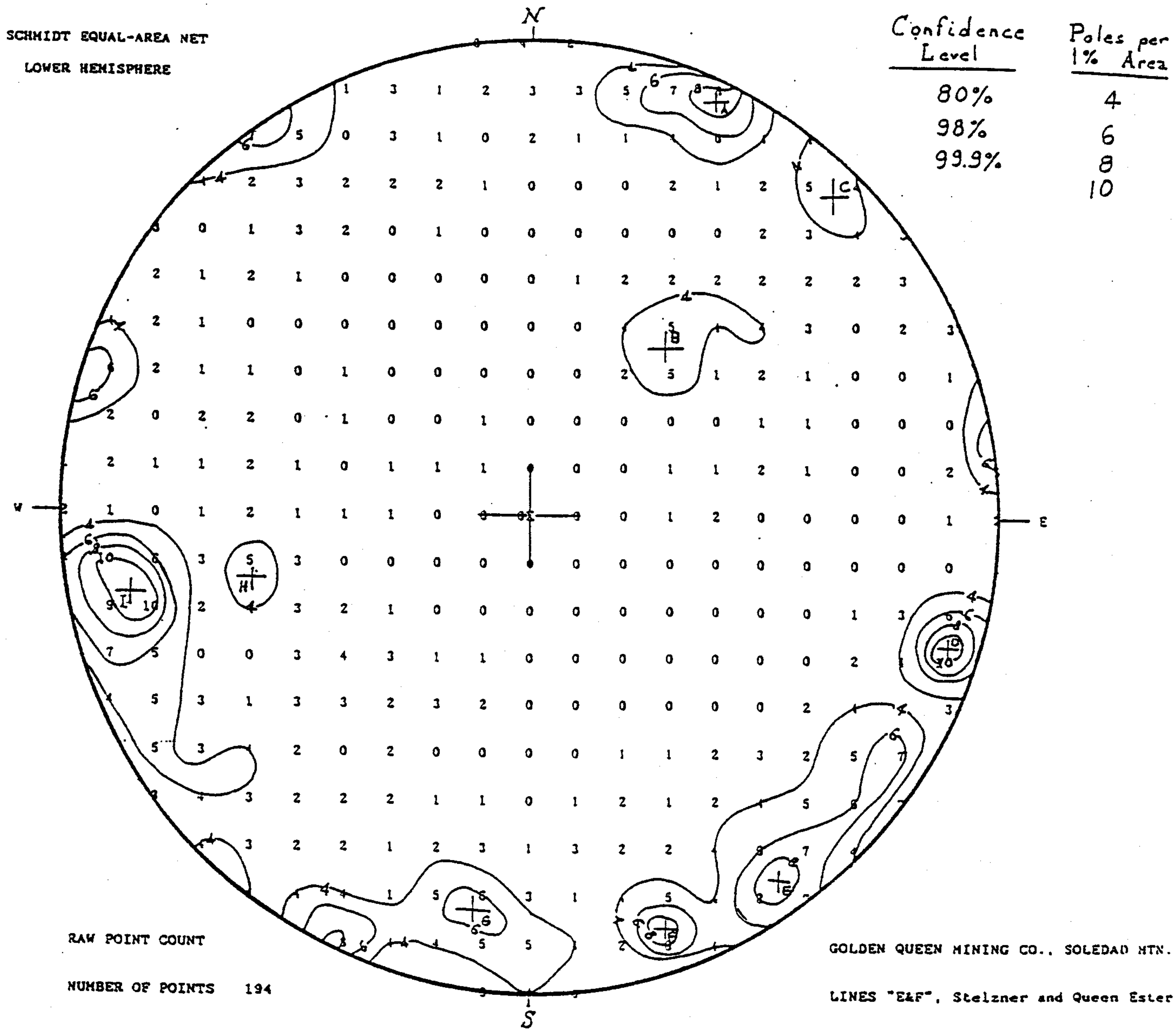
RAW POINT COUNT

NUMBER OF POINTS 137

GOLDEN QUEEN MINING CO., SOLEDAD MTN.

LINES "B" & "C", Tup - Upper pyroclastic

Figure B-12. Schmidt equal-area plot of Detail Lines E + F fractures.



APPENDIX C

WEDGE-SHEAR FRACTURE INTERSECTION CONSTRUCTIONS

Figure C-1. Wedge intersection construction for Detail Line A fracture sets, see Figure B-1.

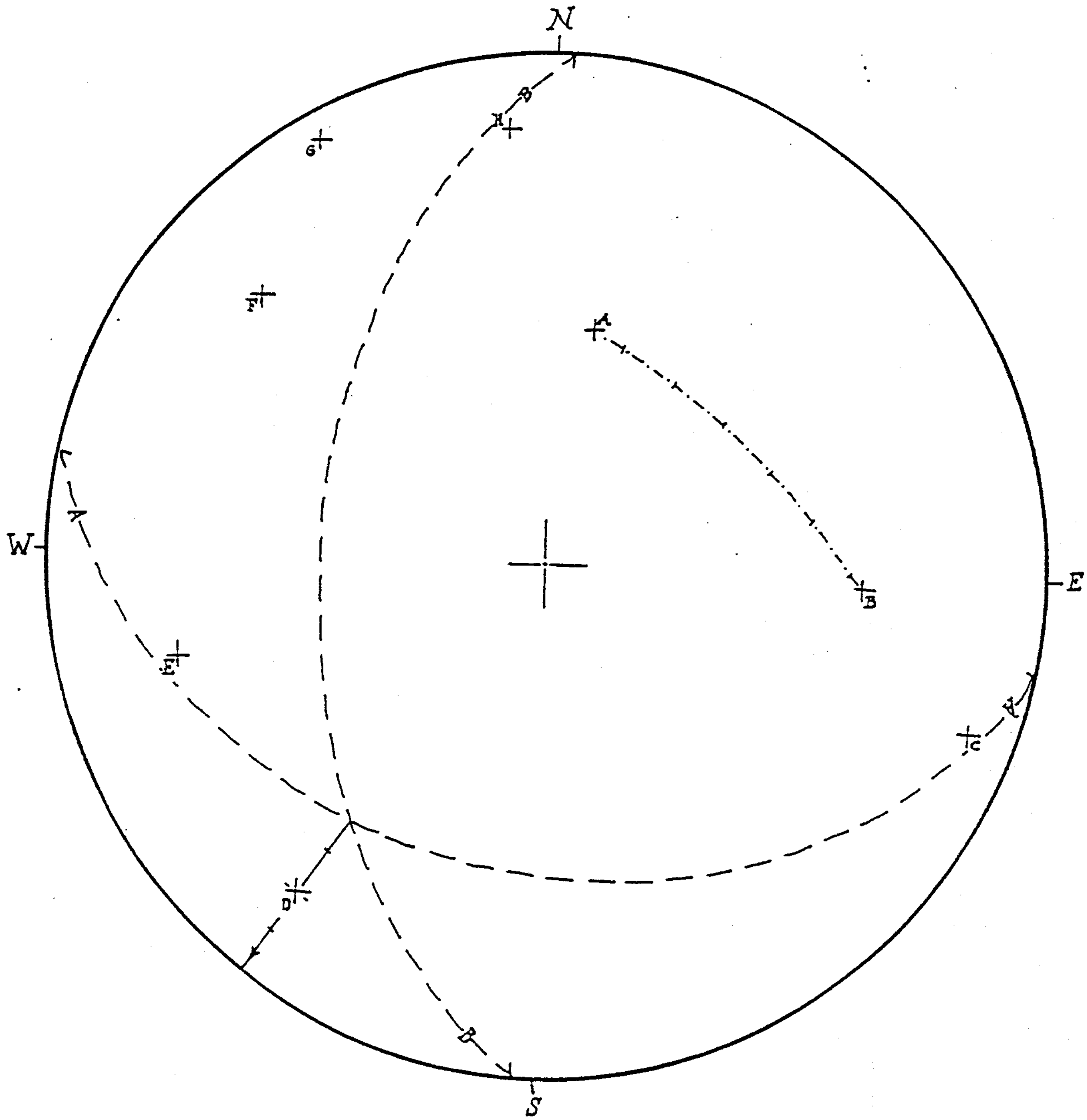


Figure C-2. Wedge intersection construction for Detail Line D fracture sets, see Figure B-4.

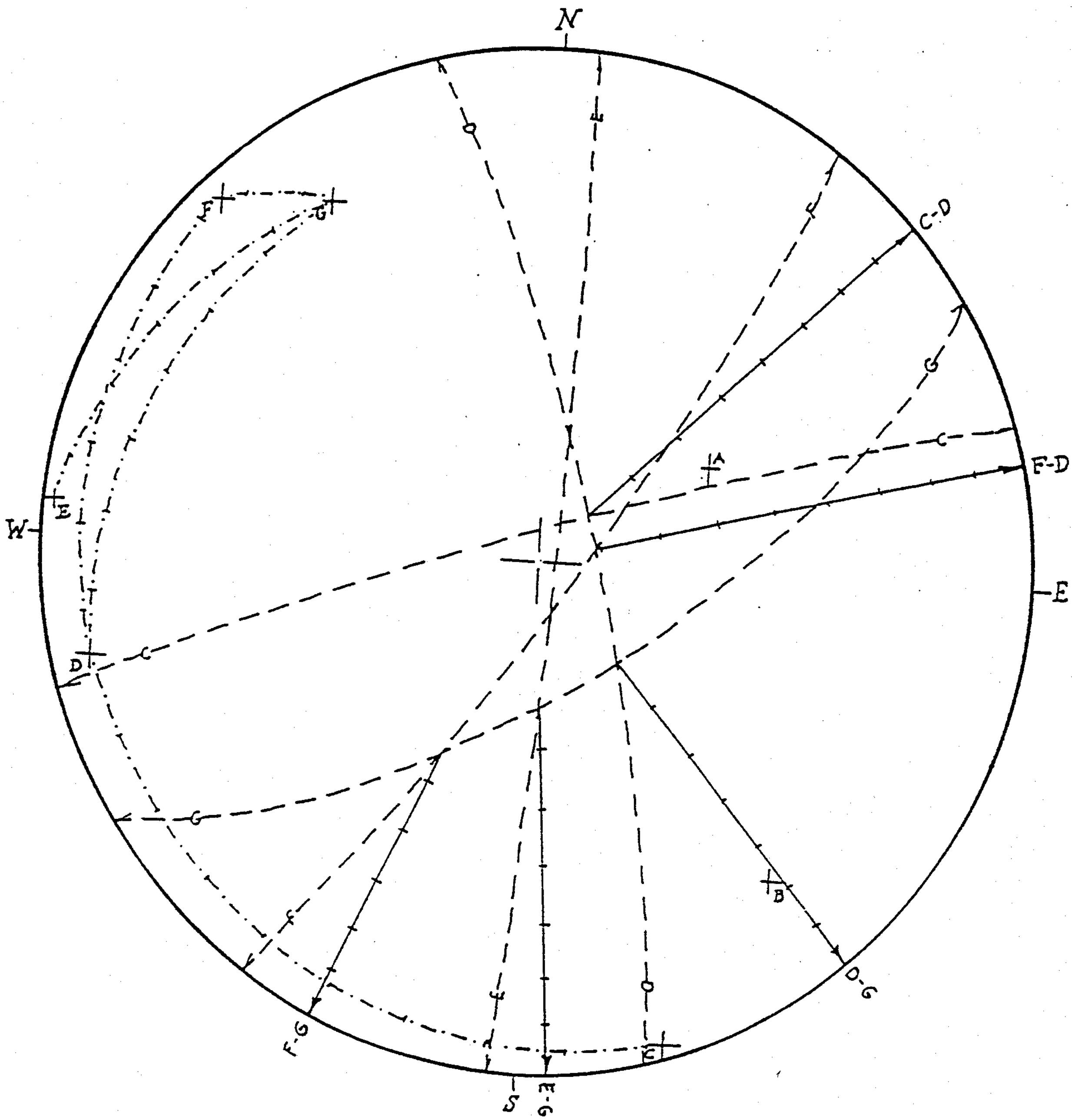


Figure C-3. Wedge intersection construction for Detail Line G fracture sets, see Figure B-7.

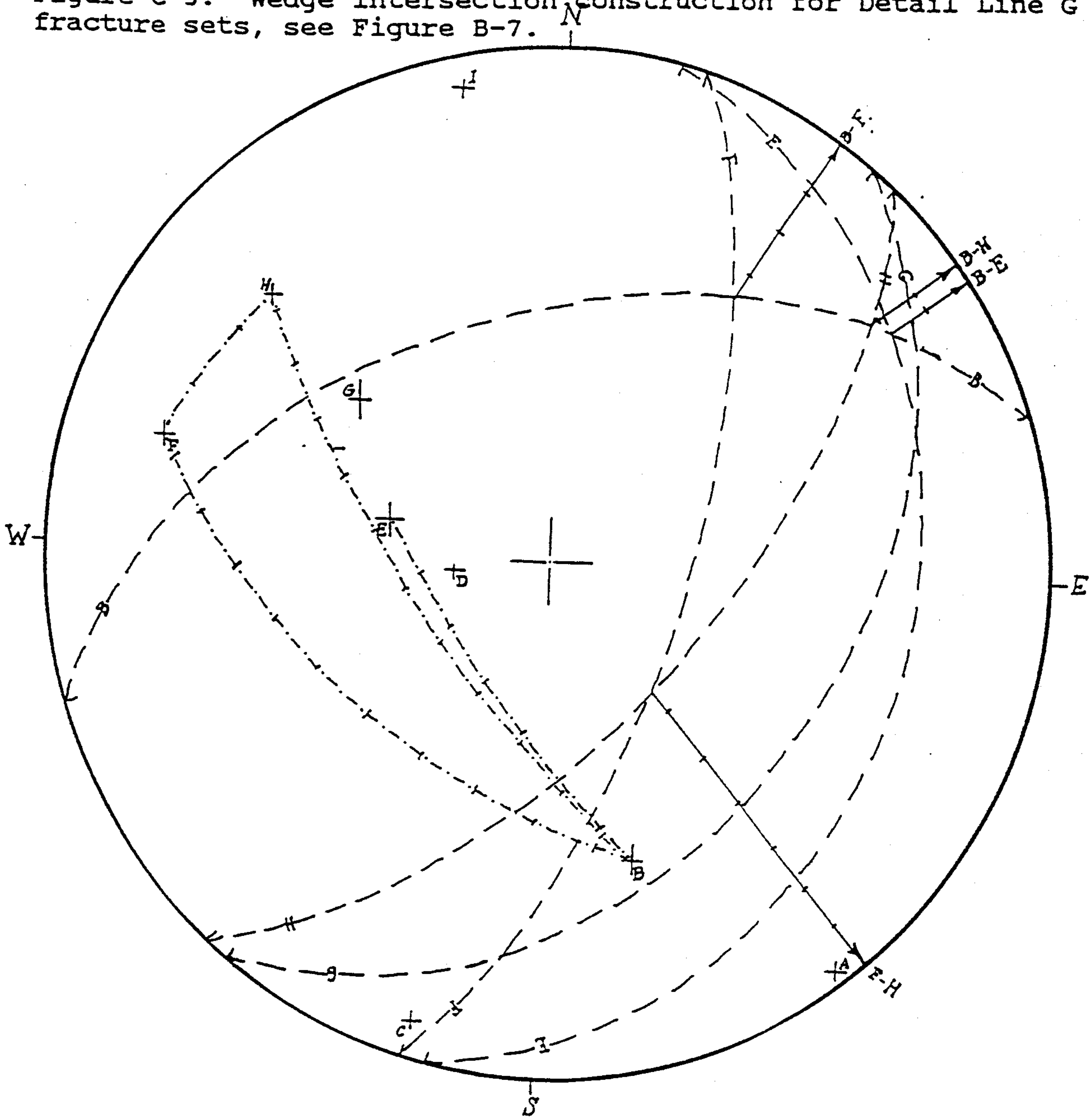


Figure C-4. Wedge intersection construction for Detail Line I fracture sets, see Figure B-9.

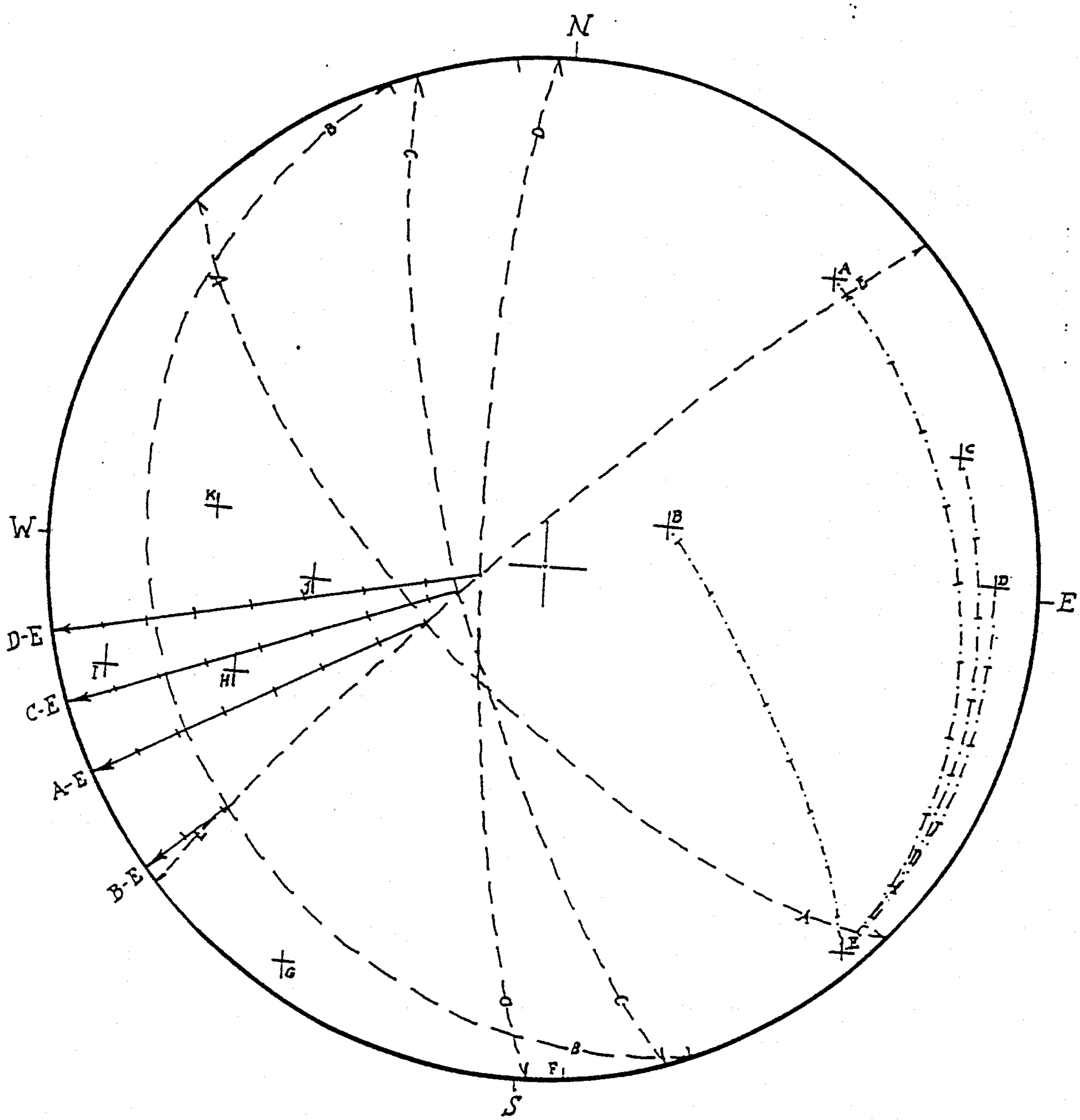


Figure C-5. Wedge intersection construction for Detail Lines B + C fracture sets, see Figure B-11.

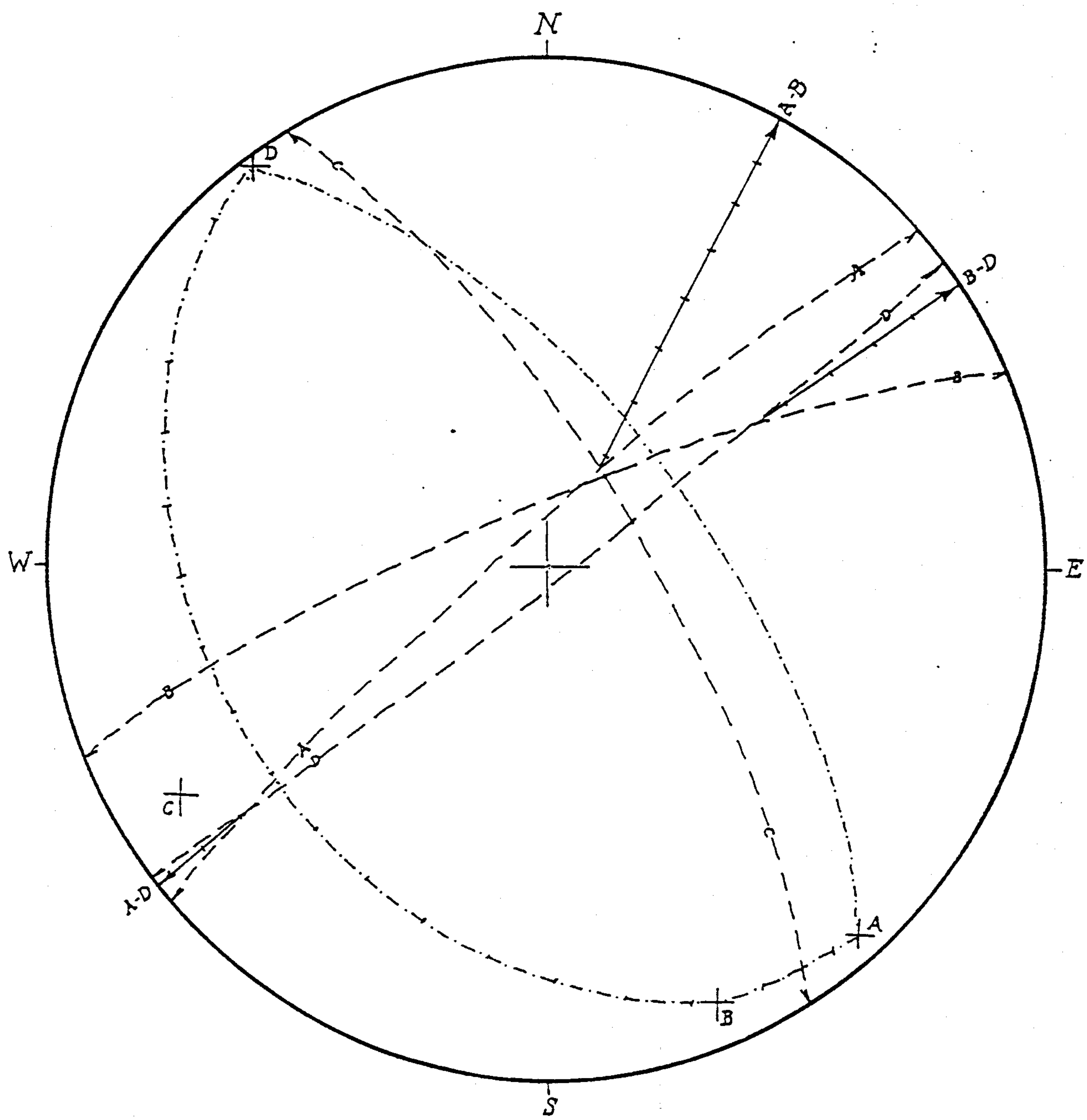
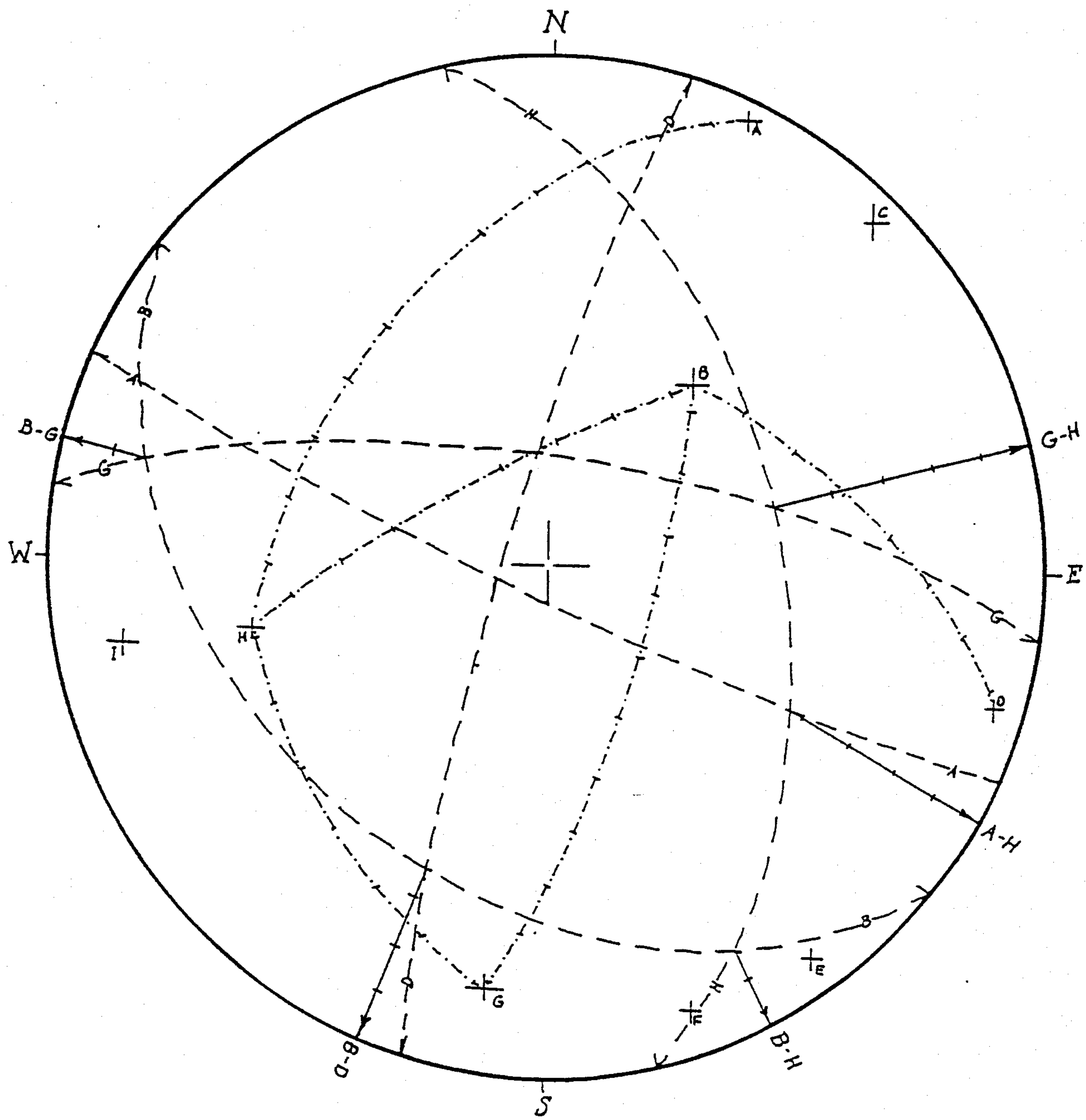


Figure C-6. Wedge intersection construction for Detail Lines E + F fracture sets, see Figure B-12.



APPENDIX D

DETAIL LINE FIELD DATA FRACTURE MAPPING SHEETS

203.

Date ______

Detail Line A ; Bearing 96° ; Plunge NW

Location ROAD ABOVE WAREHOUSE Page 1 of ______

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	19	N36E	63SE	13'	Fault	Breccia Gouge	6" Filling
2	48	N22E	82NW	15'	Joint		
3	42-82	N29W	44NE	40'	Joint	Gouge	2" Filling
4	45-89	N19W	65NE	44'	Joint	Gouge	1" Filling
5	70-79	N14W	60NE	9'	Joint	Mud	1/2"
6	7	N19W	79NE	1			Flow banding trend
7	12	N7W	74NE	0.5			" " "
8	6	N22W	79SW	1	Joint		
9	7	N39E	71SE	3	Joint		Tight
10	7.5	N59E	77SE	3	Joint		Tight
11	8	N63E	81SE	4	Joint		"
12	6.5	N9W	79SW	1	"		" Yes, west
13	7	N9E	63NW	1	"		" Yes, East
14	9	S74E	8NE	2	"		Tight
15	8	N84E	72SE	2	"		" 16=10" above 14
16	9.5	S16E	70NE	1.5	"		"
17	9	S59E	11NE	2	"		" 17 = 12" below 14
18	9.5	N69E	73SE	1	"		"
19	10.5	N61E	87SE	4	Shear Fault	Gouge	1/2"
20	12	N13W	72NE	3	Fault	Gouge	1"
21	14.5	S6E	53SW	12	Joint		Tight
22	15	N58E	87SE	2	Joint		Tight
23	16.5	N40E	59SE	5	Joint		Tight
24	19.5	N8E	84NW	2	Joint		Tight
25	22.5	N56W	85NE	1	Joint		Tight

203.

Date ________

Detail Line A ; Bearing 96° ; Plunge ________

Location ROAD ABOVE WAREHOUSE Page 2 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	26.5	N22E	75NW	0.5	Joint		Tight
2	29.5	N46E	65SE	1	Joint		Tight
3	34.0	126°	70NE	2'	J	—	Tight
4	34.7	143°	76NE	3'	J	—	Tight
5	35.4	19°	83NW	10'	J	—	Tight
6	36.1	136°	68NE	2'	J	Qtz	1/4" THICK Tight
7	39.4	68°	29SE	2½'	J	—	Tight
8	39.6	164°	63NE	3½'	J	—	Tight
9	41.0	71°	28SE	2'	J	—	Tight
10	42.8	68°	90	2½'	J	—	Tight
11	42.3	186°	88NW	½'	J	—	Tight
12	45.7	134°	67NE	1'	J	—	Tight
13	45.7	43°	62NW	1'	J	-	Tight
14	46.8	33°	74NW	1'	J	-	Tight
15	47.2	101°	74SW	3'	J	-	Tight
16	48.3	162°	76NE	4'	J	-	Tight
17	50.2	86°	82SE	2'	J	-	Tight
18	50.2	147°	62SW	1'	J	-	Tight
19	50.5	92°	84NE	1'	J	-	Tight
20	51.9	198°	85NW	1½'	J	-	Tight
21	51.9	175°	69NE	5'	J	-	Tight
22	52.7	151°	58SW	1'	J	-	Tight
23	55.2	88°	68SE	1½'	J	-	Tight
24	55.2	164°	59NE	3'	J	-	Tight
25	55.4	44°	79NW	½'	J	-	Tight

Look for 35 mark on cut

N36°E from 312, 27.5 feet

N6°E bearing of baseline

203.

Detail Line A ; Bearing 96° ; Plunge ______ Date ______

Location ROAD ABOVE WAREHOUSE Page 3 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	55.7	55°	64SE	2½'	J	–	Tight
2	56.9	168°	62NE	1'	J	–	Tight
3	57.4	203°	86NW	2'	J	–	Tight
4	58.8	186°	88NW	3'	J	–	Tight
5	58.8	188°	60SE	6'	J	–	Tight
6	61.1	242°	72SE	1½'	J	–	Tight
7	62.0	72°	68SE	2'	J	–	Tight
8	62.5	293°	86NE	2'	J	–	Tight
9	63.4	54°	88SE	1'	J	–	Tight
10	63.4	40°	74SE	3½'	J	–	Tight
11	63.9	172°	53NE	3'	J	–	Tight
12	65.0	12°	61NW	2½'	J	–	Tight
13	65.8	73°	67SE	3'	J	–	Tight
14	66.0	164°	84NE	1½'	J	–	Tight
15	66.0	109°	44SW	1'	J	–	Tight
16	66.0	260°	90	4'	J	–	Tight
17	66.5	19°	64NW	2½'	J	–	Tight
18	66.9	81°	52SE	2'	J	–	Tight
19	67.7	73°	82NE	3'	J	–	Tight
20	67.7	315°	68NE	2½'	J	–	Tight
21	68.6	101°	36SW	3'	J	–	Tight
22	69.0	102°	52SW	3'	J	–	Tight
23	70.3	99°	36SW	3'	J	–	Tight
24	69.8	84°	87NE	2'	J	–	Tight
25	70.9	19°	84NW	4'	J	–	Tight

203.

Date

Detail Line A ; Bearing 96° ; Plunge

Location ROAD ABOVE WAREHOUSE Page 4 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Filling	Remarks
1	71.4	16°	78NW	3'	J	—	Tight
2	71.6	58°	66SE	2'	J	—	Tight
3	72.2	321°	43NE	1/2'	J	—	Tight
4	72.8	77°	60SE	1'	J	—	Tight
5	72.8	272°	76NE	2'	J	—	Tight
6	73.2	164°	44SW	1'	J	—	Tight
7	74.0	198°	72NW	5'	J	—	Tight
8	74.1	344°	54NE	10'	J	—	Tight
9	74.9	294°	82NE	2'	J	—	Tight
10	75.6	183°	54NW	3'	J	—	Tight
11	76.0	256°	69SE	2'	J	—	Tight
12	76.5	66°	47SE	1'	J	—	Tight
13	77.1	199°	69NW	1 1/2'	J	—	Tight
14	77.5	174°	53SW	1'	J	—	Tight
15	78.5	84°	78SE	1'	J	—	Tight
16	80.6	191°	83NW	4'	J	—	Tight
17	81.5	324°	77NE	1'	J	—	Tight
18	83.2	322°	90	1'	J	—	Tight
19	83.8	24°	78SE	1'	J	—	Tight
20	84.3	316°	84SW	1'	J	—	Tight
21	84.6	51°	64SE	3'	J	—	Tight
22	85.6	62°	83NW	4'	J	—	Tight
23	85.9	329°	90	2'	J	—	Tight
24	86.4	60°	84SE	4'	J	—	Tight
25	86.9	178°	78SW	2 1/2'	J	—	Tight

203.

Date 2/20/95

Detail Line B ; Bearing 116 ; Plunge 2°

Location 46' @ 85° from GQ352 UPPER SADDLE Page 1 of 2

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Filling	Remarks
1	0	51°	90	1	J		
2	0	51°	81SE	2	J		
3	4	328°	72NE	2	J		
4.	6	111	85NE	2	J		
5	6	111°	85SW	4	J		
6	9	57°	71NW	4	J		
7	9	328°	87SW	2	J		
8	9	57°	87°SE	6	J		
9	13	336°	90	2	J		
10	13	43°	18SE	2	J		
11	15	332°	87SW	10	J		
12	16	5°	87SE	3	J		
13	17	71°	89SE	4	J		
14	18	72°	88SE	4	J		
15	20	10°	27SE	6	J		
16	20	78°	64NW	6	J		
17	23	336°	47NE	2	J		
18	25	332°	53NE	5	J		
19	25	66°	87SE	5	J		
20	25	326°	76°SW	6	J		
21	28	67°	84SE	10	J		
22	33	5°	75SE	5	J		
23	34	22°	76SE	2	J		
24	34	340°	83NE	2	J		
25	35	324	87SW	14	J		

UPPER PYROCLASTIC

203.

Date 2/20/95

Detail Line B ; Bearing 116 ; Plunge 2°

Location 46' @ 85° from GQ352 UPPER SADDLE Page 2 of 2

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	37	48°	79SE	1	J		
2	40	48°	74NW	3	J		
3	41	54°	80SE	2	J		
4	42	54°	80SE	4	J		
5	43	54°	80SE	4	J		
6	43	48°	90	2	J		
7	43	48°	63NW	2	J		
8	45	356°	86SW	3	J		
9	46	356°	90	3	J		@ GQ 355
10	51	56°	62NW	1	J		
11	54	39°	84SE	2	J		
12	55	336°	79SW	4	J		
13	55	86°	90	1	J		
14							ALLUVIUM
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

203.

Date 2/20/95

Detail Line C ; Bearing 248 ; Plunge 2°

Location UPPER SADDLE LOWER ROAD Page 1 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	4	172°	74NE	3	J		
2	4	248°	74NW	2	J		
3	4.5	172°	75NE	3	J		
4	4.7	172°	74NE	3	J		
5	5	180°	85 E	5	FLT	BRECCIA ≤ 1/2"	3" WIDE
6	7	330°	85NE	5	FLT	BRECCIA ≤ 1/2'	18" WIDE
7	9	325°	72NE	6	J.	CLAY	1/2" WIDE
8	9	38°	90	4	J		
9	9	310°	62°SW	1	J		
10	9	310°	80°SW	1	J		
11	11	326°	56° NE	1	J		
12	11	276°	57SW	2	J		
13	12	309°	55NE	2	J		
14	13	22°	76NW	8	J		
15	14	325	74NE	2	J		
16	15	123°	43SW	17	J	CLAY	1/2" WIDE
17	17	310°	65NE	2	J		
18	17	5°	90	1	J		
19	18	43°	73NW	2	J		
20	18	322°	72NE	5	J		
✓21	18	97°	48	2	J		
22	19	90°	52N	3	J		
23	20	346°	76NE	4	J	CLAY	1" WIDE
24	20.5	30°	90	3	J		
25	21.0	329	76NE	1	J		

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Date 2/20/95

Detail Line C ; Bearing 248 ; Plunge 2°

Location UPPER SADDLE LOWER ROAD

Page 2 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	21.6	330	64° NE	2	J		
2	23	324°	67° NE	3	J		
3	23.4	31°	90	2	J		
4	24	30°	47 NW	2	J		
5	24	75°	46° SE	3	J		
6	24.4	325	75° NE	2	J		
7	26	330	80° NE	3	SHEAR		SHEAR ZONE HANGING WALL FROM FLT
8	26.2	331	79° NE	3	SHEAR		
9	~~26~~.5	331	80 NE	3	SHEAR		
10	27.0	330	80° NE	3	SHEAR		
11	27.2	330	81° NE	5	FLT	BRECCIA ≤ 1/2"	BRECCIA ZONE 14".
12	28.6	334	81° NE	2	JT		
13	29	334	58 SW	1	J		
14	29.3	334	81° NE	3	J		
15	30	45	65° SE	7	J		
16	30	319	90°	2	J		
17	30.2	21°	78° SE	6	FLT	BRECCIA ≤ 1/2"	BRECCIA ZONE 5" THICK
18	32.5	308	31 SW	1	J		
19	33.0	341	64 NE	5	FLT	GOUGE	1 inch thick
20	34.3	336	77 NE	3	J		
21	34.3	248	82 NW	1	J		
22	34.4	325	24 SW	1	B		FLOW BANDING
23	35.2	322	78 NE	2.5	J	CLAY	1/2" thick
24	35.2	311	51 SW	2	J	CLAY	1" thick
25	35.2	356	49 NE	10	FLT	BRECCIA ≤ 3"	3.5 ft thick

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Date 3/1/95

Detail Line C ; Bearing 248 ; Plunge 2°

Location UPPER SADDLE LOWER ROAD Page 3 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	39.5	338	52 NE	6	J		
2	40.3	69	40 SE	1	J		
3	41	39	84 NW	25	J		
4	42.3	194	15 NW	3	J		
5	42.8	322	69 NE	1.5	J		
6	43.5	316	62 NE	1	J		
7	43.5	245	71 NW	7	J		
8	46.0	304	56 NE	1	J		
9	48.4	323	72 NE	6	J		
10	48.6	356	32 NE	1	J		
11	49.8	338	70 NE	4	J		
12	50.3	283	74 SW	1	J		
13	54.0	304	87 NE	5	J	CLAY	1/2" THICK
14	54.4	26	88 SE	7	J		
15	57.7	306	87 NE	4	J		
16	58.0	265	31 SE	4.5	B		FLOW BEDDING
17	58.7	331	78 NE	2	J		
18	58.8	334	77 NE	2	J		
19	58.9	330	77 NE	2	J		
20	59.6	325	75 NE	4	J		
21	60.1	329	79 NE	4	J		
22	60.3	44	74 SE	13	J		
23	61.0	311	74 NE	2	J		
24	62.4	319	61 NE	3	J		
25	63.2	358	45 NE	2	J		

203.

Date 3/3/95

Detail Line C ; Bearing 248 ; Plunge 2°

Location UPPER SADDLE LOWER ROAD Page 4 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	63.5	0	68 W	1	J		
2	64.2	319	65 NE	3	J		
3	64.2	294	39 SW	3	J		
4	65.6	316	50 NE	2	J		
5	65.6	296	69 SW	1	J		
6	66.4	313	62 NE	2	J		
7	68.4	336	73 NE	5	FLT	BRECCIA ≤1"	4" THICK
8	70.0	32	83 NW	7	J		
9	70.6	35	84 NW	2	J		
10	71.6	310	74 NE	1	J		
11	72.2	311	76 NE	1	J		
12	72.8	311	72 NE	2	J		
13	72.8	265	68 NW	6	J		
14	74.3	326	71 NE	2	J		
15	74.8	16	90	1	J		
16	75.3	342	77 NE	3	J		
17	77.3	346	68 NE	5	FLT	GOU[illegible] [illegible]	≤6' [illegible] 77.3 - 79.5 [illegible] THICK
18	80.4	358	85 NE	2	J		
19	82.3	354	80 NE	2	J		
20	82.4	245	78 NW	2	J		
21	85.0	306	73 SW	3	J		
22	85.2	332	63 NE	6	J		
23	86.0	252	74 NW	3	J		
24	88.3	48	87 NW	7	J		
25	88.6	352	84 NE	3	J	CLAY	6" Thick

203.

Date 3/15/95

Detail Line D ; Bearing 126° ; Plunge 0

Location NW RIDGE UPPER ROAD   Page 1 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	0	336	83SW	30.0	V/FLT	QTZ	4" QTZ VEIN/FAULT
2	0	49	65 NW	3	J	—	
3	1	46	84SE	4	FB	—	FLOW BANDING (FB)
4	1	46	84SE	4	J	—	
5	1	79	38 NW	1	J	—	
6	2.2	71	89 NW	1	J	—	
7	2.9	358	90	3	V	QTZ	1/2" WIDE
8	2.9	49	4	0.5	J	—	
9	3.5	26	87SE	3.0	FB	—	
10	6.1	45	86 SE	3.0	J	—	
11	6.2	55	4	1	J		Joint Set are every 4-6" (over 4')
12	8.3	342	84SW	8	V	QTZ	1/2" WIDE
13	11	340	28SW	3	J	—	
14	12.4	52	88 NW	5	J	—	
15	12.6	83	78 NW	4	J		
16	13.6	31	87SE	4	J		
17	13.6	75	26SE	2.5	J		
18	15.0	86	86SE	4	J		
19	15.4	351	78SW	6	J		
20	16.0	139	20SE	2	J		
21	16.6	56	79NW	5	J		
22	18.0	19	90	8	J		
23	18.2	316	34NE	3	J		
24	20.4	11	86SE	2.5	J		
25	20.4	296	54NE	1	J		

203.

Date 3/15/95

Detail Line D ; Bearing 126 ; Plunge 0°

Location NW RIDGE UPPER ROAD Page 2 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Filling	Remarks
1	20.6	358	86SW	1	J	—	
2	20.6	100	73NE	1	J	—	
3	21.5	328	32SW	3	J	—	
4	21.7	328	26SW	1	J	—	
5	22.8	8°	84NW	6	J	QTZ	1/4" WIDE
6	22.8	72°	88SE	6	J	—	
7	23.2	336	64SW	1	J	—	
8	24.2	6°	86SE	4	J	—	
9	24.2	302	84SW	3	J	—	
10	25.6	354	73SW	6	J	—	
11	26.0	338	28SW	2	J	—	
12	26.6	66	72NW	1	J	—	
13	27.1	71	74NW	3	J	—	
14	28.6	321	46SW	3	J	—	
15	28.9	20	46NW	2	J	—	
16	29.0	38	23SE	1	J	—	
17	29.0	106	73NE	2	J	—	
18	31.2	343	75NE	3	J	—	
19	31.6	346	87SW	5	J	—	
20	32.0	58	72SE	6	J	—	
21	32.2	342	82NE	5	J	QTZ	1/2 inch WIDE
22	32.2	118	72NE	11	J	—	
23	32.6	352	63NE	2	J		
24	32.8	352	72NE	1	J		
25	33.0	63	83SE	3	J		

Date 3/16/95

Detail Line: D ; Bearing 126 ; Plunge 0°

Location NW RIDGE UPPER ROAD Page 3 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	34.3	64	64 SE	1	J	—	
2	34.3	326	48 SW	2	J	—	
3	34.8	85	87 SE	2	J	—	
4	38.0	346	39 SW	6	J	—	
5	38.4	349	43 SW	6	J	—	
6	38.6	53	73 SE	1	J	—	
7	39.0	75	82 NW	6	J	—	TIGHT
8	39.4	56	67 SE	3	J	—	
9	41.4	78	88 SE	5	J	—	TIGHT
10	41.7	347	71 NE	4	J	—	
11	42.0	323	36 SW	2	J	—	
12	42.7	66	88 SE	4	J	—	
13	43.7	356	60 NE	2	J	—	
14	44.0	82	87 SE	2.5	J	—	
15	44.8	357	81 NE	2	J	—	
16	45.0	8	90	2	J	—	
17	45.6	342	77 NE	3	FB	—	FLOW BANDING
18	46.5	55	74 SE	3	J	—	
19	47.4	60	32 SE	1	J	—	
20	47.4	331	70 NE	4	J	—	TIGHT
21	48.5	328	54 SW	3	J	—	
22	48.7	74	73 SE	1	J	—	
23	49.0	342	35 SW	1	J	—	
24	49.6	356	75 NE	2	J	—	
25	51.1	70	88 NW	3.5	J	—	

203.

Date 3/16/94

Detail Line D ; Bearing 126 ; Plunge 0°

Location NW RIDGE UPPER ROAD Page 4 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	52.3	98	83SW	3	J	—	
2	53.0	70	78NE	2	J	—	
3	54.8	344	85SW	3	J	—	
4	56.0	78	71NE	6	J	—	
5	56.0	346	84NE	8	J	—	
6	56.9	40	44SE	2	J	—	
7	56.9	40	90	2	J	—	
8	57.0	84	76NE	3	J	—	
9	57.5	344	73NE	3	J	—	
10	57.5	8	70SW	1	J	—	
11	58.4	331	35SW	2	J	—	
12	59.0	71	86SE	2	J	—	
13	59.0	102	64SW	1	J	—	
14	59.2	356	80	3	FB	—	FLOW BANDING
15	59.8	54	72NW	1	J	—	
16	59.9	81	77NW	2	J	—	
17	60.5	345	71SW	3	J	—	
18	61.1	86	78NW	2	J	—	
19	61.1	311	43SW	2	J	—	
20	61.1	109	79SW	1	J	—	
21	61.9	304	54NE	3	J	—	
22	62.4	8	34SE	2	J	—	
23	63.0	54	62NW	2	J	—	
24	63.9	46	73NW	2	J	—	
25	64.3	50	67NW	2	J	—	

203. Date 5/9/95 JES

Detail Line E ; Bearing ________ ; Plunge 1

Location Top of Queen Ester Page 1 of ____

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
							Bend @ 30.4' 0-44' @ 11° plunge; Bear = 29 - @ ; Bear =
1	Qtz Vein 0-2 1/2	345°	76° NE	6'	2 1/2 Qtz	wide Vein	
2	2 1/2	57°	74° NW	1'	J	None Tight	
3	3	41°	80° NW	10'	2" wide Qtz Vein		
4	5	341°	78° NE	4'	J	Qtz	1/8" filling
5	5 1/2	57°	66° SE	2'	J	Tight	
6	8 1/2	31°	84° NW	3	J	Tight	
7	8 3/4	296°	88° NE	1/2	J	Tight	
8	9	22°	90°	10'	J	Tight	
9	11.4	329°	72° NE	13'	Vein	6"	Banded Qtz vein
10	11.7	46°	86° NW	3'	J	Tight	
11	13	28°	78° NW	1'	J	Tight	
12	12.7	36°	72° SE	7'	J	Tight	
13	12.8	357°	80° SW	1'	J	Tight	
14	15	53°	78° SE	3'	J	Tight	
15	17.5	112°	29° NE	2'	J	1/16" Qtz filling	
16	18.8	316°	76° NE	3'	J	Tight	
17	20	66°	67° SE	3'	J	Tight	
18	22.2	350°	49° NE	1'	J	Tight	
19	22.3	119°	78° NE	1.5'	J	Tight	
20	26.7	323°	50° NE	8'	J	Qtz	1" filling
21	28.8	2°	87° SE	1'	J	Tight	
22	29	126°	85° NE	2'	J	Tight	
23	30	49°	77° SE	3'	J	Tight	
24	31.2	131°	84° NE	1.5'	J	Tight	
25	32.7	75°	58° NE	2'	J	Tight	

No offsets measured from Tape to structure. Tape distance taken at right angle to outcrop Terminous of structure.

203.

Date 5/9/95

Detail Line E ; Bearing ______ ; Plunge ______

Location Top of Dunne Estes Page 2 of ____

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	33'	144°	54°SW	1.5'	J	Tight	5 Joints in this Joint Se w/ 4" separating.
2	35.2'	89°	63°NW	0.5'	J	Tight	
3	36.3	59°	90°	2.5	J	Tight	
4	36.5	348°	52°NE	1'	J	Tight	
5	37.6	49°	84°NW	2'	J	Tight	
6	38.3	55°	88°NW	1/2'	J	Tight	
7	38.5	314°	84°SW	1/2'	J	Tight	
8	41.2	64°	81°NW	1/2'	J	Tight	
9	43.6	73°	88°SE	2	J	Tight	
10	46	322°	88°NE	8'	J	Tight	+44' @ 331° Bear, 11° plunge
11	47	88°	78°NW	8'	J	Tight	
12	48	330°	84°NE	5'	J	Tight	
13	50.6	71°	86°NW	7' +	J	Tight	
14	50.8	7°	74°SE	1'	J	Tight	
15	50.8	330°	57°SW	1'	J	Tight	
16	52	69°	81°NW	3'	J	Tight	
17	52.2	354°	86°NE	7'	Qtz 6"	vein wide	
18	55.3	59°	83°NW	2.5'	J	Tight	
19	57	101°	65°NE	2'	J	Tight	
20	58.5	332°	87°NE	2'	J	Tight	
21	58.5	346°	51°NE	3'	J	Tight	
22	59.8	73°	80°NW	3'	J	Tight	
23	61	340°	81°NE	3.5'	J	Tight	
24	61.9	77°	87°NW	3	J	Tight	
25	61.9	356°	51°NE	4	J	Tight	

203.

Date 5/4/85

Detail Line E ; Bearing ; Plunge

Location Top of Queen Ester Page 3 of

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	61.9	341°	81° NE	3'	J	Tight	
2	63.4	71°	79° SE	3'	J	Tight	
3	65.5	45°	62° SE	1'	J	Tight	
4	66.9	92°	78° SW	3'	J	Tight	
5	66.9	322°	40° SE	2'	J	Tight	
6	67.5	32°	34° NE	3'	J	Tight	
7	68.4	341°	46° NE	8'	J	Tight	1/2 Qtz filling
8	68.4	344°	85° NE	2'	J	Tight	
9	69.1	55°	83° NW	2'	J	Tight	
10	71.1	326°	87° NE	6'	J	Tight	
11	71.1	88°	86° NW	2'	J	Tight	
12	71.4	74°	59° SE	4'	J	Tight	
13	74.6	320°	88° NE	15'	J	Tight	
14	76.2	49°	59° NW	1'	J	Tight	
15	76.7	351°	35° SW	1.5'	J	Tight	
16	76.7	353°	42° NE	1.5'	J	Tight	
17	78.2	12°	90°	12'	J	6" filled w/ highly Vuggy Qtz	
18	79.3	330°	74° NE	6'	J	1/2" Qtz filling	
19	81.2	35°	80° NW	9'	J	Tight	1/4" Qtz stringer
20	81.7	310°	35° SW	3'	J	Tight	
21	84.6	68°	86° NW	2'	J	Tight	
22	86	96°	86° NE	15'	J	Tight	Very Prominent in Road cut
23	90.4	18°	56° SE	3'	J	1/4" Qtz filling	
24	92.7	18°	88° SE	6'	J	Tight	
25	94.4	98°	66° NE	5'	J	Tight	

203.

Date 5/9/95

Detail Line B ; Bearing ; Plunge

Location Top of Queen Oster Page 4 of

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	98.2	19°	68° NW	8'	J	1/2" Vuggy QTZ	
2	98.7	22°	69° SE	2.5'	J	Tight	
3	102.7	314°	69° NE	2'	J	Tight	
4	103.5	49°	78° NW	10'	J	Tight	
5	107.3	102°	82° NE	6'	J	Tight	
6	108.5	350°	74° NE	16'	Vuggy 6"	QTZ vein	
7	108.6	308°	39° SW	1'	J	Tight	Joint set, repeats every 12" X 4 ..
8	109.6	346°	68° NE	5'	J	Tight	
9	110.8	298°	44° SW	25'	J	Tight	
10	113	21°	68° SE	1'	J	Tight	Sample F Qtz
11	113.9	46°	84° NW	15'	J	Tight	
12	116.0	5°	54° SE	2'	J	Tight	
13	117.8	34°	67° NW	4'	J	Tight	
14	119.9	349°	74° NE	15'	Prominent QTZ	Vein (12")	Nearing Black Area
15	ORE ZONE						
16	153.6	99°	77° NE	20'	J	Tight	
17	171	18°	85° NW	20'	J	Tight	Sample I Qtz
18	171.9	93°	70° NE	3'	J	"	
19	173	353°	87° NE	3'	J	Tight	
20	173.4	99°	74° NE	5'	J	"	
21	175.4	16°	82° NW	12'	J	"	
22	173.8	353°	26° SW	1'	J	"	
23	177.4	94°	85° NE	20'	J	"	
24	178.5	350°	82° NE	20'	J	"	
25	179.5	84°	86° SW	20'	J	"	

Above Markowitts

203.

Date 5/10/95

Detail Line F ; Bearing S40E ; Plunge Ø

Location STELZNER, TOP OF ROAD, (END) Page 1 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	0	S30°W	81°SE	1'	J	Ø	End of Road
2	0	N41°W	43°SW	1'	J	Tight	dotted out of 3 supported 3" spacing
3	1.3	S71°W	76°NW	1'	J	Tight	
4	2.0	N63°W	76°NE	2'	J	Tight	
5	2.3	N34°E	85°NW	1.5'	J	Tight	
6	2.7	N51°E	58°NW	2'	J	"	
7	3	N42°W	75°NE	2'	J	"	
8	4	N46°E	69°NW	1.5'	J	"	
9	4	N38°W	61°SW	1'	FB	Tight	Flow Banding = FB
10	4.5	N17°E	80°NW	1'	J	"	1" Qtz filling
11	4.5	N48°W	76°SW	2'	J	"	
12	5.6	N28°E	66°NW	2'	J	"	
13	6.2	N49°E	70°NW	1'	J	"	
14	6.2	N69°W	74°SW	1'	J	"	
15	6.6	N69°W	36°NE	1'	J	"	
16	7	N52°E	81°NW	1'	J	"	
17	7.2	N37°E	87°NW	1'	J	"	with 1/4" Qtz filling
18	7.3	N66°W	72°SW	2.5'	J	"	
19	7.6	N76°W	84°NE	2'	J	"	
20	8	N61°W	57°NE	0.5'	J	"	
21	8.2	N77°E	55°NW	0.5'	J	"	
22	9.1	N34°E	76°NW	0.5'	J	"	
23	9.5	N9°W	74°NE	1.5'	J	"	1/32" Qtz filling
24	9.9	N12°W	68°NE	1'	J	"	1/8" Qtz filling
25	10.1	N71°E	78°NW	1'	J	"	

203.

Date 5/10/95

Detail Line P ; Bearing ; Plunge

Location Stulzner, Top Of Road   Page 2 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
							S 40°E Line Bearing
1	10.3	N30°W	84°NE	1'	J	Tight	
2	10.5	N79°E	68°NW	1.5'	J	"	
3	10.6	N12°W	80°NE	1.5'	QS	"	Quartz stringer (1/4")
4	11.1	N48°W	86°SW	1'	J	Tight	
5	11.4	N4°E	26°SE	1'	J	"	
6	11.4	N36°W	77°SW	1'	J	"	
7	11.4	N61°E	71°NW	0.5'	J	"	
8	11.4	N72°W	82°SW	1'	J	"	
9	11.8	N56°E	76°NW	1.5'	J	"	
10	12.6	N61°W	88°SW	2'	J	"	
11	14	N54°E	90°	1.5'	J	"	
12	14.4	N61°W	85°SW	1'	J	"	
13							Colluvium
14	17	N77°W	81°SW	2.5'	J	Tight	
15	18.6	N75°W	54°NE	1'	J	"	
16	18.6	N14°E	83°NW	0.5'	J	"	
17	19.5	N26°W	72°SE	2'	J	"	
18	19.8	N57°W	32°SW	1.5	J	"	
19	22.2	N18°W	74°NE	1'	J	"	1/2" Qtz Vein Filling
20	22.6	N46°W	71°SW	1'	J	"	
21	23.3	N54°E	90°	1.5'	J	"	
22	23.3	N34°W	65°NE	2	J	"	
23	24	N14°W	47°SW	0.5'	J	"	
24	24.5	N51°W	84°SW	4	J	"	
25	25.1	N49°W	41°SW	1.5'	FB	"	Flow Banding

203.

Date 5/[illegible]/85

Detail Line F ; Bearing ; Plunge

Location Stockpile, Top of Road Page 3 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
							S40°E Line Bearing
1	25.8	N82°E	83°SW	2	J	Tight	
2	26	N26°W	47°NE	1.5"	J	"	
3	26.1	N30°E	84°NW	2'	J	"	
4	26.5	N10°W	68°NE	2'	J	"	
5	27.7	N33°E	40°SE	1'	J	"	
6	27.7	N54°W	84°SW	4'	J	"	
7	28	N79°W	83°SW	2'	J	"	
8	28.2	N51°E	86°NW	1'	J	"	
9	29.5	N63W	90°	3'	J	"	
10	29.5	N20°E	86°NW	0.5'	J	"	
11	30.3	N42°E	84°NW	1'	J	"	
12	30.7	N18°E	90°	1'	J	"	
13	32.3	N68°W	80°NE	2.5'	J	"	
14	32.3	N56°W	43°NE	2'	J	"	
15	32.7	N44°W	52°SW	1'	J	"	
16	32.8	N51°E	66°SE	1.5'	J	"	
17	33.6	N74°W	82°SW	2.5'	J	"	
18	33.6	N11°E	51°SE	1'	J	"	
19	34.2	N64°E	49°NW	0.5'	J	"	
20	34.3	N10W	88°NE	2'	J	"	
21	34.7	N74°W	86°SW	2'	J	"	
22	34.7	N25°W	84°SW	0.5'	J	"	
23	35.3	N64°W	83°NE	0.5'	J	"	
24	35.3	N69°W	44°SW	2'	J	"	
25	35.3	N39°W	51°NE	1.5'	J	"	

203.

Date 5/10/95

Detail Line F ; Bearing ; Plunge

Location Stulzner, Top of Road Page 4 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	36	N23°W	90°	3'	J	Tight	
2	37.8	N90°E	83°N	0.5'	J	"	
3							colluvium
4	41.5	N85°E	90°	1.5'	J	Tight	
5	41.6	N9°W	87°NE	0.5'	J	Tight	
6	41.7	N82°E	90°	0.5'	J	"	
7	42.7	N86°W	78°SW	1'	J	"	
8	43.3	N50°W	49°SW	4'	B		Bedding Contact (not flo. banding)
9	Colluvium to 60.0 feet (44-60)						+44 feet
18" Qtz Vein	60	N24°E	83°NW	2'	QV	18"	New Line Bearing ≈ S28°E
10	61.4	N32°W	82°SW	1'	J	Tight	
11	61.7	N41°W	52°NE	1'	J	"	
12	62.3	N29°E	86°SE	2'	J	"	
13	62.5	N69°W	83°SW	3'	J	"	
14	63.6	N46°W	36°NE	1.5'	J	"	
15	64.2	N5°W	90°	4'	J	"	1/4" Qtz Vein
16	65	N90°E	78°S	2'	SZ	Gouge	3" Gouge in shear Zone
17	67	N67°W	88°SW	0.5'	J	Tight	
18	68.3	N18°W	57°NE	1'	J	"	Followed by 17' Colluvium
19	85.8	N61°W	64°NE	1'	J	"	
20	86.3	N18°E	82°SE	1.5'	J	"	
21	86.8	N81°W	67°NE	0.5'	J	"	
22	88.2	N71°W	86°NE	0.5'	J	"	
23	88.2	N49°E	14°SE	1'	J	"	
24	88.4	N16°E	77°NW	1'	J	"	
25	89.0	N61°W	83°SW	3'	J	"	
	90.5	N66°E	67°NW	2'	J	"	

"G"

203.

Date 9-14-95

Detail Line Starts @ DH# DH.on: 7 ft. from line; Bearing S 30° W ; Plunge -3° NE

Location ______ Page 1 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	2	N5°W	59 NE	2.8'	J	–	rough surface
2	3	N5° E	37 ~~SW~~ NW E	1.5'	J	–	flat surface
3	4	N74°E	83 ~~SW~~ SE E	1.2'	J	–	rough surface
4	5	N50°E	-87 ~~SW~~ SE E	1.2'	J	–	" "
5	5	N78°E	-65 ~~SW~~ SE E	1.8'	J	–	flat surface
6	6	N89°E	-90°	.5'	J	–	rough surface
7	6	N15°E	-71 ~~SW~~ SE E	2.8	J	–	rough sfc.
8	7	N72°E	-55NW	1.1	J	–	flat sfc.
9	9	N45°E	-85°NW	2.1	J	–	" "
10	9	N21°E	-21° ~~SW~~ NW E	1.1	J	–	" "
11	9	N23°E	-53° ~~SW~~ SE E	4.2	J	–	rough surface
12	10	N10°W	-28°NE	.7	J	–	flat
13	10	N47°W	-31 SW	.3	J	–	"
14	10	N55°W	-68 SW	.8	J	–	"
15	10	N28°W	-19 NE	1.0	J	–	"
16	11	N64°E	-70°NW	1.9	J	–	"
17	11	N50°E	-54° ~~SE~~ NW E	.8	J	–	"
18	11	N45°E	-26 SE	.9	J	–	"
19	11	N45°W	-12°NE	1.0	J	–	"
20	13	N63°E	-83°SE	3.5	J	–	"
21	13	N20°W	90°	3.1	J	–	rough surface
22	13	N5°W	-10°NE	2.2	J	–	" "
23	13	E-W	-57°N	.3	J	–	" "
24	15	N45 W	-72°SE	2.2	J	–	" "
25	16	N32°E	-32°SE	4.1	J	–	flat surface

203. 6"

Detail Line 6 ; Bearing S 30° W ; Plunge -3° NE

Date 9-14-95

Location

Page 2 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	16	N15°W	-13° NE	1.2	J	-	flat surf.
2	17	N72°E	-85 NW	1.8	J	-	[illegible] surface
3	18	N45°E	-31° SE	1.0	J	-	" surf.
4	20	N83E	-85 NW	1.3	J	-	flat
5	20	N72W	-72 NW	1.5	J	-	
6	20	NS E	-62 SE	.4	J	-	flat
7	21	N50E	-50 SE	.9	J	-	"
8	21	N50E	-82 NW	.8	J	-	"
9	22	N70E	-84 SE	1.2	J	-	rough surface
10	23	N53E	-55 SE	1.5	J	-	flat surf.
11	23	N20E	-76 NW	.9	J	-	"
12	23	N38E	-40 SE	.8	J	-	"
13	24	N33E	-35 SE	1.6	J	-	"
14	25	N77E	-90	2.5	J	-	"
15	29	N20E	-44 SE	7.5	J	-	rough surface
16	26'	N75E	-88 SE	4.5	J	-	"
17	28'	N41E	-45 SE	3.8	J	-	flat
18	30'	N75E	-79 SE	2.0	J	-	"
19	30'	N-S	-22° E	.5	J	-	"
20	30'	N44E	-45 SE	6.0	J	-	Rough surface
21	33'	N64°E	-82 NW	2.5	J	-	"
22	31'	N27W	-62 SW	1.5	J	-	flat surface
23	31'	N16W	-43 SW	2.8	J	-	"
24	33'	N40E	-40 SE	4.4	J	-	rough surface
25	35'	N85E	-51 SE	5.0	J	-	"

203.

Detail Line G ; Bearing ________ ; Plunge ________

Date 9/14/95

Location ________ Page 3 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	40	N40E	-45SE	9.0'	J	-	rough undulating surface
2	40	N66E	-53NW	1.0	J	-	flat surface
3	43	N43W	-65NE	1.8	J	Q, CA	flat surface
4	43	N40E	-63SE	2.0	J	-	rough undul. surf.
5	46	N40E	-78SE	2.8	J	-	"
6	46	N29E	-43SE	4.5	J	-	rough, undul. surf.
7	48	N51E	-83SE	2.2	J	-	flat surface
8	49	N13E	-29SE	5.8	J	-	rough, undulating surface
9	52	N52E	-82SE	3.2	J	-	flat surface
10	52	N30E	-37SE	5.8	J	-	rough, undulating surface
11	53	N55W	-40SW	1.2	J	-	rough surface
12	51	N2E	-80 ~~NW~~ E	1.5	J	-	"
13	54	N60°W	-63NE	8.5	FA	gouge(?)	4' wide FA zone, parallel [illegible] in FW, [illegible] exposure, to 58° along trace
14	60	N57°W	-76SW	1.5	J	-	rough surface
15	61	N10E	-80 ~~NW~~ E	.9	J	-	"
16	65	N74W	-85NE	2.0	FA	CA, Q	thin FA, undulating surface
17	66	N75E	-82SE	2.0	FA	CA, Q	thin FA
18	68	N45W	-73NE	3.0	FA	CA, Q	thin FA
19	68	N60E	-60SE	4.2	J	-	rough undulating surface
20	69	N75E	-50NW	3.8	FA	CA, Q	thin fracture
21	70	N87W	-82NE	1.3	J	-	flat surface
22	71	N79W	-70SW	1.8	J	-	" "
23	69	N74E	-50NW	3.4	J	-	" "
24	75	N80E	-87SE	3.2	J	-	rough surface
25	76	N70E	-74SE	2.2	J		" "

203. 7' 21

Date 9-14-95

Detail Line G ; Bearing ; Plunge

Location Page 4 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	77	N20E	-34SE	1.4	J	-	flat surface
2	77	N64E	-78SE	.6	J	-	" "
3	77	N10E	-48 ~~SE~~ NW E	.8	J	-	" "
4	82	N75W	-82NE	2.0	J	-	" "
5	78	N62W	-88NE	2.0	J	-	* " " from 78' - 102': Bearing = N43°E Plunge = -2°NE
6	108	N28E	-53SE	1.3	J	-	* from 102' - 143': Bearing = N52E plunge = -2°NE
7	109	N65E	-84SE	1.5	J	-	flat surface
8	108	N38W	-35NE	1.1	J	-	" "
9	112	N2E	-27SE	1.5	J	-	" " tight
10	112	N5E	-75 ~~SW~~ NWE	1.0	J	-	" " "
11	112	N78W	-90°	2.2	J	-	" " "
12	115	N84E	-70SE	2.5	J	-	rough undulating surface
13	116	N77E	-33SE	1.2	J	-	flat surface
14	11_	N85E	-86SE	3.5	J	-	" "
15	120	N80E	-90°	4'	J	-	
16	145	N30W	-45NE	1.0	J	-	from 143' - 156': BEARING = N70°E PLUNGE = -3°NE
17	145	N82E	-83SE	1.4	J	-	flat surface
18	145	N5E	-64 ~~SW~~ NWE	.5	J	-	"
19	151	N20E	-86SE	2.5	J	-	"
20	151	N68W	-82NE	2.5	J	-	"
21	151	N37W	-65SW	1.2	J	-	rough surface
22	153	N13E	-63SE	2.5	J	-	flat surface
23	155	N15E	-72SE	2.7	J	-	"
24	155	N88E	-83SE	1.5	J	-	"
25	156	N15E	-17SW E	1.0	J	-	"

203.

Detail Line "H" ; Bearing Ⓐ 315° 0'-38' Ⓑ 348° 38'-89' ; Plunge Ⓐ Ø Ⓑ +3°

Date 9-17-95

Location West Side of ridge

Page 1 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	10	80°	-90'	8'	Frac.	½" Q	
2	12	175°	-88°NE	4'	"	1½" Q	
3	12	95°	-90°	3'	Frac.	—	
4	17	255°	-75°NW	6'	"	Q:	multiple thin, parallel frac's.
5	17	340°	-75 SW W	4'	"	½" Q	
6	18	355	-78 SW W	4'	"	¼" Q	
7	19	348	-78 SW W	5'	"	⅛" Q	
8	20	230	-68NW	6'	FA	Q, gouge	
9	21	346	-90°	2'	Frac.	Q	
10	22	95°	-82 NE E	3'	FA	Gouge	
11	25	304°	-90°	2'	Frac.	—	
12	25	286	-77NE	2'	Frac.	¼" Q	
13	27	354°	-85E	1½'	"	—	
14	29'	352°	-82°E	4'	"	—	
15	29	35°	-18SE	0.5'	J	—	Tight
16	29	225°	-68NW	1'	J	—	"
17	29	109°	-75 NE E	1'	J	—	"
18	32'	96°	-62NW	4'	Frac	—	Tight frac's w/ Q (~⅛")
19	34'	355°	-86 SW E	1.5'	frac.	Q	
20	34'	345°	-89 NE E	1.5'	"	"	
21	34'	25°	-70°	2'	"	"	
22	39'	347°	-83NE	1.5'	"	½" Q	LINE SEGMENT "B" 348°, +3° 38' → 89'
23	39'	44°	-69NW	2.5	"	—	
24	47'	356°	-88E	2.5	"	½" Q	
25	47'	345°	-90°	2.5'	"	—	multiple thin, parallel frac's.

From center of Big White Rock @ intersection 195' @ 270° to start of Line.

Line segment "A". 315° (Az.) 0° (plunge) 0' – 38'

Rx = flowbanded rhyolite, Bd. generally striking N-S, dipping 45°-70°E

203.

Detail Line "H" ; Bearing (B) 348° 38-89' (C) 348° 89-140 ; Plunge (B) +3° (C) -14°

Date 9-17-95

Location

Page 2 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	50'	279 ~~279°~~	-86NE	3'	Frac	—	
2	50'	356°	-80E	3½'	"	—	
3	53'	30°	-12NW	1'	"	—	
4	53'	169°	-88E	1.5'	"	—	
5	54'	245°	-87NW	1.2'	J	—	Tight
6	57'	288	-85NE	4'	Frac	—	
7	59'	3°	-90°	3.5'	"	—	
8	59'	75°	-70SE	4'	Frac	Q	
9	61'	73°	-83NW	5½'	"	—	
10	61'	348	-74SW	3'	"	—	
11	70'	15 ~~5°~~	-79NW	1.5'	"	Q	
12	70'	183°	-87W	1.5'	"	¼" Q	
13	76'	94°	-35S	25'	FA	Gouge, Brx	FA ~12" wide, multiple thin, ‖ frac's.
14	82'	345	-70 NW E	1.2'	Fc	QTZ	
15	82'	55°	-90°	2.2'	Fc	—	
16	82'	155	-84NE	6'	FC	2" Q	
17	88'	343°	-74NE	2'	FC	½" Q	
18	88	60°	-64NW	3½'	FC	—	
19	89	307	-85NE	2'	"	—	
20	89	351	-86E	4'	"	—	
21	89	170	-83 SW ~~E~~	4'	Vein	6" Q	
22	95	170	-89 SW ~~E~~	4.5'	"	2" Q	Line Segment "C" 89' - End
23	93	163	-67SW	1.4	Frac	—	AZ=348°, Plunge = -14°
24	93	168	-77NE	2.8	frac	—	
25	104	246	-80SE				

203. "H"

Detail Line H ; Bearing 348° ; Plunge -14°

Date 9-18-95

Location

Page 3 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	106	348	-86 SW	3.5'	VEIN	5" Q	
2	107	349	-79SW	7.5'	"	1" Q	
3	110	272	-90	2.5	Frac	–	} multiple // frac's & some rock
4	109	274	-81 SW ~~NE SE~~	6'	"	–	shattering btwn. these frac. surfaces
5	112	300	-17SW	2'	"	–	
6	113	286	-16SW	3'	"	–	
7	114	283	-18SW	.8'	"	–	
8	114	350	-90	1'	"	Q	
9	114	270	-78S	2'	"	1/4" Q	
10	116	344	-88NE	13'?	Vein	1/2" Q	
11	116	342	-86SW	1.5'	"	2" Q	
12	116	75	-75NW	2.5	"	1" Q	
13	116	79	-78NW	2'	Frac	–	
14	117	290	-25SW	.9	"	–	
15	118	115	-16SW	.8'	"	–	
16	125	84	-83NW	3'	Frac	–	
17	127	355	-90°	4'	Vein	4" Q	
18	130	352	-90	2'	"	3" Q	
19	130	130	-19NE	1.4'	J	–	
20	130	192	-72SE	.9'	J=	–	
21	130	167	-76NE	1.5	J	–	
22	131	300	-72SW	1.5	Frac	–	
23	131	351	-80SW	1.5	"	–	
24	132	88	-78NW	2'	"	–	
25	133	276	-77SW	3'	"	local Q	

203. "H"

Date 9-18-95

Detail Line H ; Bearing 348° ; Plunge -14°

Page 4 of 4

Location

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	140	336	-80NE	3.5'	VEIN	Q	
2	140	252	-76NW	.8	Frac	—	
3	141	106	-57SW	3.2	"	—	
4	143	343	-74NE	3.5	"	½":Q	
5	143	37	-64SE	.9	"	Q	
6	143	233	-57SE	1.4	"	½" Q	
7	156	90°	-70N	3'	FA	3" FA Bx	
8	159	148°	-55SW	3.5'	FC	Q	
9	170'	305'	-14NE	.8'	FC	Q	
10	170	120	-80NE	1.8'	J	—	
11	169	35	-62SE	.8'	J	—	Tight
12	169	60	-62NW	1.2	J	—	"
13	169	323	-90°	1'	J	—	"
14	168	82	-85SE	1.8'	FRAC	—	
15	171	270	-68N	1.8	FA	FA Brx Q	
16	173	5°	-10NW	1.5	FRAC	—	
17	173	163	-87NE	2'	"	—	
18	173	325	-87SW	1.5'	"	—	
19	176	15	-52NW	5.5'	"	—	
20	176	125	-23SW	1.8	"	—	
21	178	70	-72NW	4.5	"	1¼" Q	
22	179	302	-86NE	3.5'	"	Q	
23	181	200	-48NW	2.5	J	—	
24	185'	352°	-78NE	1.8'	FRAC	—	
25	188'	325°	-68SW	5'	FRAC	Q	

203. "I"

Date 10-3-95

Detail Line QUARTZ LATITE Bearing 250°; Plunge +8°

Location 9620E 8693N 3283ELEV Page 1 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	1	348°	-84°NE	10'	FA	Q, gouge, hem	NOTE: Line begins @ DH GQ-165
2	3	348°	-74°SW	12'	FA	Q, FA Brx	
3	5	341°	-75NE	2'	FA	Brx, hem	
4	5	136°	-81 NE	2.5'	J	hem	
5	6	346°	-77NE	4	FA	Brx hem	
6	7	180°	-86 W	3.5'	J	hem	
7	7	346°	-72°SW	4.5'	J	hem	
8	8	317°	-88NE	4.8'	J	hem.	
9	9	63°	-87NW	1.8'	J	–	tight
10	10	46°	-70NW	3.5'	J	hem	
11	10	139°	-74SW	1.8'	J	"	
12	11	46°	-87NW	3.5'	J	–	
13	11	52°	-78NW	3.2'	J	hem	
14	13	306°	-64SW	4.5	J	hem, MnO	
15	13	219°	-86NW	.8'	J	" "	
16	14	155°	-73 SW	.5'	J	" "	
17	14'	125°	-87SW	.8'	J	" "	
18	16	137	-86 SW	3'	FA	Brx; Q	
19	17	230°	-87NW	1'	J	hem, MnO	
20	17	226°	-80NW	1.2'	J	–	
21	17	140°	-89 SW	2'	J	–	
22	19	297°	-84°NE	4'	J	clay	
23	19	190°	-41°NW	1.1	J	"	
24	20	108°	-66°SW	6.5'	J	"	
25	20	53°	-41NW	2.2	J	hem, MnO	

203. " "

Detail Line J ; Bearing ; Plunge

Date 10-3-95

Location

Page 2 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	23	155	-76°SW	.5'	J	–	
2	24	170	-83SW	4'	J	hem	
3	24	173	-87NE	4'	FA	Brx	
4	25	340	-76SW	3.5'	FA	gouge	
5	25	174	-85NE	1.8'	J	–	
6	26	68	-74NW	1.5	J	hem, MnO	
7	27	345	-86NE	1'	J	" "	
8	27	280	-87NE	2.1	J	clay	
9	28	180	-66W	1.8	J	"	
10	28	4	-24SE	1.5	J	–	tight
11	29	176	-71SW	1	J	–	"
12	29	265	-88NW	.8	J	clay	
13	30	2	-26NW	.3	J	–	tight
14	31	118	-87NE	.9	J	–	
15	32	349	-38NE	.5	J	–	tight
16	33	340	-58NE	.5	J	–	"
17	36	345	-42NE	5'	FA	Brx, hem	
18	49	321	-86NE	6.5'	J	hem	
19	49	4	-54SE	1.9	J	hem	
20	49	70	-51NW	4'	J	"	
21	53	307	-80NE	1'	J	"	
22	53	72	-88NW	1'	J	"	
23	56	350	-37NE	2'	J	"	
24	56	283	-49NE	1.5'	J	"	
25	57	209	-73SE	2.3	J	"	

203. " "

Date 10-3-95

Detail Line I ; Bearing ; Plunge

Location Page 3 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	58	0	-61 E	2.5	J	hem	
2	58	309	-82SW	2.8	J	"	
3	60	315	-69SW	2.5	J	"	
4	60	5	-32SE	4'	J	"	
5	60	45	-85NW	2.8'	J	"	
6	66	338	-64SE	.7	J	"	
7	66	270	-60N	.4	J	"	
8	68	79	88NW	2.5	J	"	
9	68	160	-62NE	1.2	J	"	
10	72	4	-82NW	1.2	J	"	
11	72	10	-45SE	2	J	"	
12	72	52	-54NW	1.8	J	"	
13	75	6	-66SE	2	J	"	
14	75	324	-57SW	1	J	"	
15	77	345	-52SE	2	J	hem, MnO	
16	77	40	-88NW	3.8	J	" "	
17	77	309	-72SW	1.5	J	" "	
18	79	47	-77SE	1.2	J	" "	
19	79	56	-75NW	1	J	" "	
20	79	350	-47SW	1.8	J	" "	
21	104	282	-86NE	4.5	J	hem, MnO	
22	105	60	-81NW	5.5	J	" "	
23	105	4	-53SE	4	J	" "	
24	111	136	-67NE	2	J	" "	
25	111	79	-90	2	J	" "	

203. " "

Date 10-3-95

Detail Line I ; Bearing ; Plunge

Location

Page 4 of 4

No.	Tape Distance	Strike	Dip	Trace Length	Fracture Type	Fracture Filling	Remarks
1	117	260	-64NW	2	√	FeOx stain	
2	118	157	-89SW	.8	√	"	
3	118	232	-48NW	1.2	√	"	
4	120	202	-76NW	3	√	"	
5	120	146	-81NE	2.5	√	", clay	
6	122	303	-90	.8	√	"	
7	122	41	-56NW	1.5	√	"	
8	124	94	-72NE	2	√	"	
9	125	201	-85NW	2.5	√	"	
10	125	199	-62SE	1	√	"	
11	129	125	-48NE	4	√	"	
12	129	22	-86NW	5	√	"	
13	129	150	-24SW	1.5	√	"	
14	131	163	-18SW	.5	√	"	
15	131	125	-55NE	2	√	"	
16	131	14	-82NW	3.5	√	1/4" ①	
17	133	128	-69NE	1.2	√	FeOx stain	
18	133	185	-86NW	1.1	√	"	
19	133	88	-44SE	1.1	√	"	
20	136	349	-19SW	.5	√	"	
21	136	118	-67NE	1.5	√	"	
22	136	46	-87NW	1.5	√	"	
23	139	84	-88SE	1.1	√	"	
24	139	1	-70NW	1.8	√	"	
25	139	337	-54NE	5.5	√	"	

JOHN F. ABEL, JR.
MINING ENGINEER

310 LOOKOUT VIEW COURT
GOLDEN, CO 80401
303-279-4901
FAX 278-8163

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EARTHQUAKE STABILITY SUPPLEMENT

SOLEDAD MOUNTAIN PROJECT, SLOPE STABILITY ANALYSIS

by

John F. Abel, Jr.
Colorado P. E. 5642

John F. Abel, Jr.

for
Golden Queen Mining Co., Inc.
Soledad Mountain
P.O. Box 878
Rosamond, California 93560-0878

Reviewed by:
The Glasgow Engineering Group, Inc.

REGISTERED PROFESSIONAL ENGINEER
DON ANDREW POULTER
Sept 6, 1996
No. C-32075
Exp. 8-23-97
CIVIL
STATE OF CALIFORNIA

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The site largest maximum-credible site acceleration of 0.055 g will not be sufficient to induce failure of any of the planned 55° design slope angles on Soledad Mountain. This is true for both the highwalls along the Ultimate Pit Boundary and the pitwalls within the interconnected pits inside the Ultimate Pit Boundary. In fact, pitwall slope angles of 63.4° (two vertical to one horizontal) could resist the additional down-dip thrust from the maximum credible earthquake without triggering a slope failure. The earthquake slope stability analyses conservatively assumed not only the maximum credible earthquake but that the acceleration from that event was directed in the most adverse possible direction, parallel to the potential sliding surfaces. Table 1 presents the lowest-possible limiting equilibrium factors of safety for the planned pit highwalls, critically oriented with respect adverse to fracture orientations, with the maximum individual slope height and when subjected to the maximum credible earthquake. The relatively minor impact of the maximum credible earthquake on the calculated factors of safety for the conservative application of the earthquake acceleration can be seen by comparing Table 1 with Table 2, for the same conditions without the maximum credible earthquake acceleration applied to the slopes.

The planned pit slopes and geologic conditions are unchanged from those presented in the "Soledad Mountain Project, Slope Stability Analysis", November 8, 1995. The Tertiary rock types present in the area of the planned pit remain the Quartz Latite Porphyry (Tql), the Middle Pyroclastic Unit (Tmp), the Aphanitic Rhyolite (Tr), the Upper Pyroclastic Unit (Tup) and the Rhyolite Porphyry (Trp).

Table 1. Relative stability of planned slopes under maximum credible earthquake acceleration.

Location Information: Side of Pit	Location Information: Structural Domain	Location Information: Rock Type	Slope Ident.	Slope Height (ft)	Slope Angle (°)	Factor of Safety @ Confidence Level 80%	98%	99.9%
East	11	Tup	1	800	63.4°	Failure paths >		
					55°	possible slopes		
	12	Tmp	2	850	63.4°	1.84	1.75	1.74
					55°	3.63	3.54	3.54
	1	Tql	3	400	63.4°	2.34	2.23	2.23
					55°	2.35	2.24	2.24
North	2	Tr	4	550	63.4°	2.32	2.21	2.21
					55°	2.66	2.56	2.56
Northwest	5	Tmp	10	240	63.4°	5.01	4.92	4.92
					55°	11.33	11.25	11.25
			11	180	63.4°	No failure path		
					55°			
			12	220	63.4°	6.68	6.43	6.42
					55°	8.28	8.03	8.02
West	8	Trp	9	650	63.4°	Failure paths >		
					55°	possible slopes		
South			8	1100	63.4°	Failure paths <		
					55°	residual friction		
	10	Trp	7	780	63.4°	Failure paths <		
					55°	residual friction		
			6	700	63.4°	No failure path		
					55°			
	11	Trp	5	600	63.4°	Failure paths >		
					55°	possible slopes		

Table 2. Relative stability of planned slopes, without maximum credible earthquake acceleration.

Side of Pit	Location Information: Structural Domain	Rock Type	Slope Ident.	Slope Height (ft)	Slope Angle (°)	Factor of Safety @ Confidence Level 80%	98%	99.9%
East	11	Tup	1	800	63.4°	Failure paths >		
					55°	possible slopes		
	12	Tmp	2	850	63.4°	1.97	1.87	1.87
					55°	3.89	3.80	3.79
	1	Tql	3	400	63.4°	2.69	2.56	2.56
					55°	2.69	2.57	2.57
North	2	Tr	4	550	63.4°	2.53	2.42	2.42
					55°	2.91	2.80	2.80
Northwest	5	Tmp	10	240	63.4°	5.37	5.28	5.27
					55°	12.19	12.09	12.09
			11	180	63.4°	No failure path		
					55°			
			12	220	63.4°	7.30	7.02	7.01
					55°	9.05	8.78	8.77
West	8	Trp	9	650	63.4°	Failure paths >		
					55°	possible slopes		
South			8	1100	63.4°	Failure paths <		
					55°	residual friction		
	10	Trp	7	780	63.4°	Failure paths <		
					55°	residual friction		
			6	700	63.4°	No failure path		
					55°			
	11	Trp	5	600	63.4°	Failure paths >		
					55°	possible slopes		

INTRODUCTION

The following analysis of planned 55° pitwall slope angles was undertaken to evaluate their stability when the acceleration from the maximum credible earthquake is applied to the potentially unstable planned slopes of the Soledad Mountain Project. The Soledad Mountain Project involves mining the interconnected orebodies shown on Figure 1. The Ultimate Pit Boundary is shown on Figure 2. Figure 2 also indicates the structural domains, areas of consistent geologic structure, defined during the geologic work preceding preparation of the "Soledad Mountain Project, Slope Stability Analysis", November 8, 1995 report. Figure 3 presents the location of critical slopes within the Ultimate Pit Boundary as defined in the November 8, 1995 report.

The potentially unstable slopes were identified and their stability analyzed under gravitational loading in the "Soledad Mountain Project, Slope Stability Analysis" report, November 8, 1995. This report adds the force developed by the maximum credible earthquake derived site acceleration to the gravitational thrust acting down the adverse structures mapped in the area of the planned Ultimate Pit Boundary and highwalls inside the planned Ultimate Pit Boundary. Adverse fractures are those which either dip out of the planned pitwalls or join with another fracture to form a wedge of rock plunging out of a planned pitwall. Figure 4 shows the plane shear and wedge failure modes analyzed. The limiting equilibrium method was used to calculate the factors of safety between the potential driving thrust and resistance to sliding. The resistance to sliding, frictional and cohesive, along an adverse fracture orientation is not affected by earthquake acceleration if the acceleration is parallel to the daylighted fracture. Any other earthquake acceleration direction reduces the down-dip thrust component.

The "Soledad Mountain Project, Slope Stability Analysis" report, November 8, 1995 presented the method of calculating the resistance to sliding when an adversely oriented fracture set is present in one of the critical slopes. The only adjustment made in this report is the addition of the earthquake produced thrust to the gravitational thrust component.

Figure 1. Interconnected planned pits within Ultimate Pit Boundary.

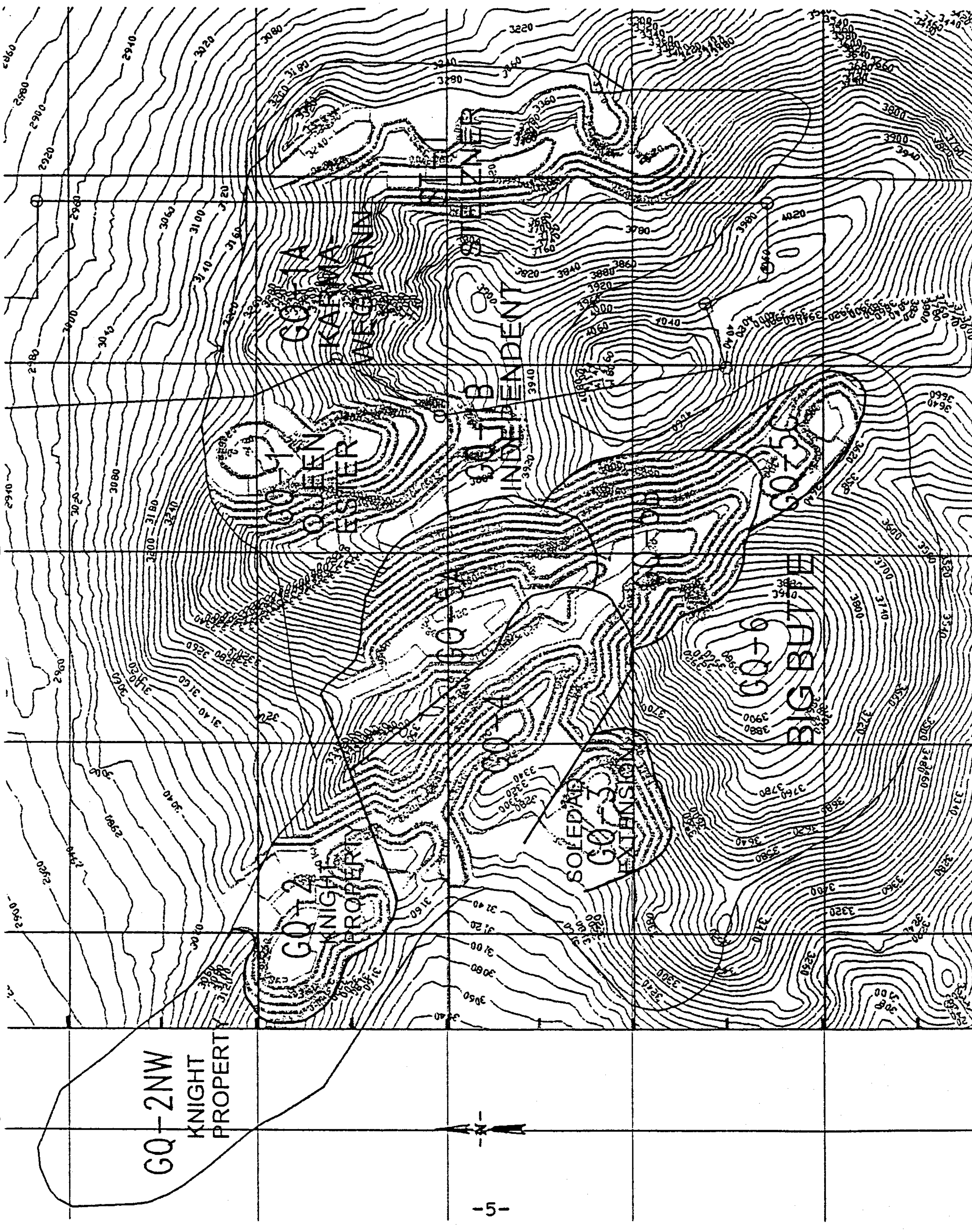


Figure 2. Structural domains for Soledad Mountain Project.

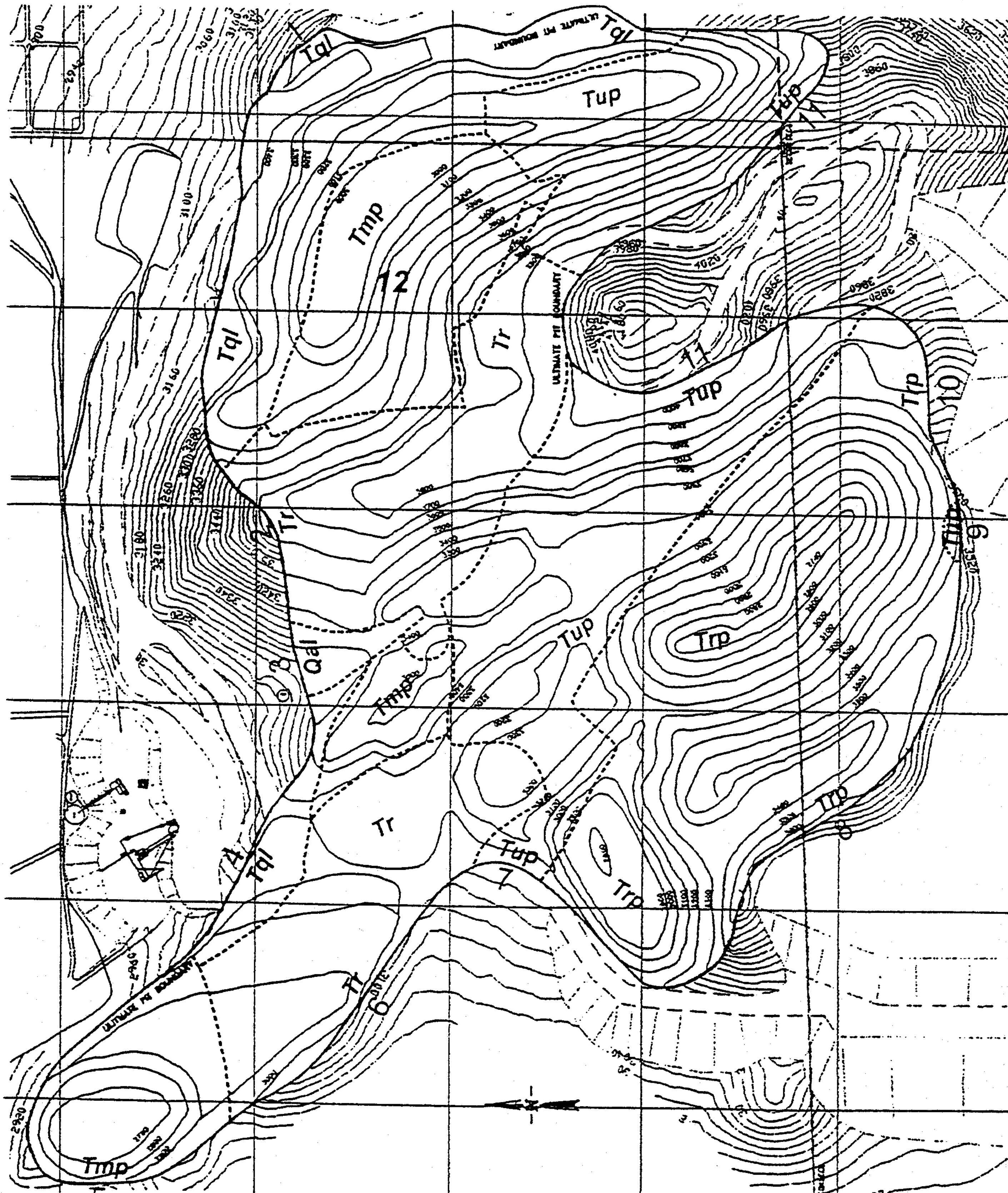


Figure 3. Critical, worst-case highwalls for Soledad Mountain Project.

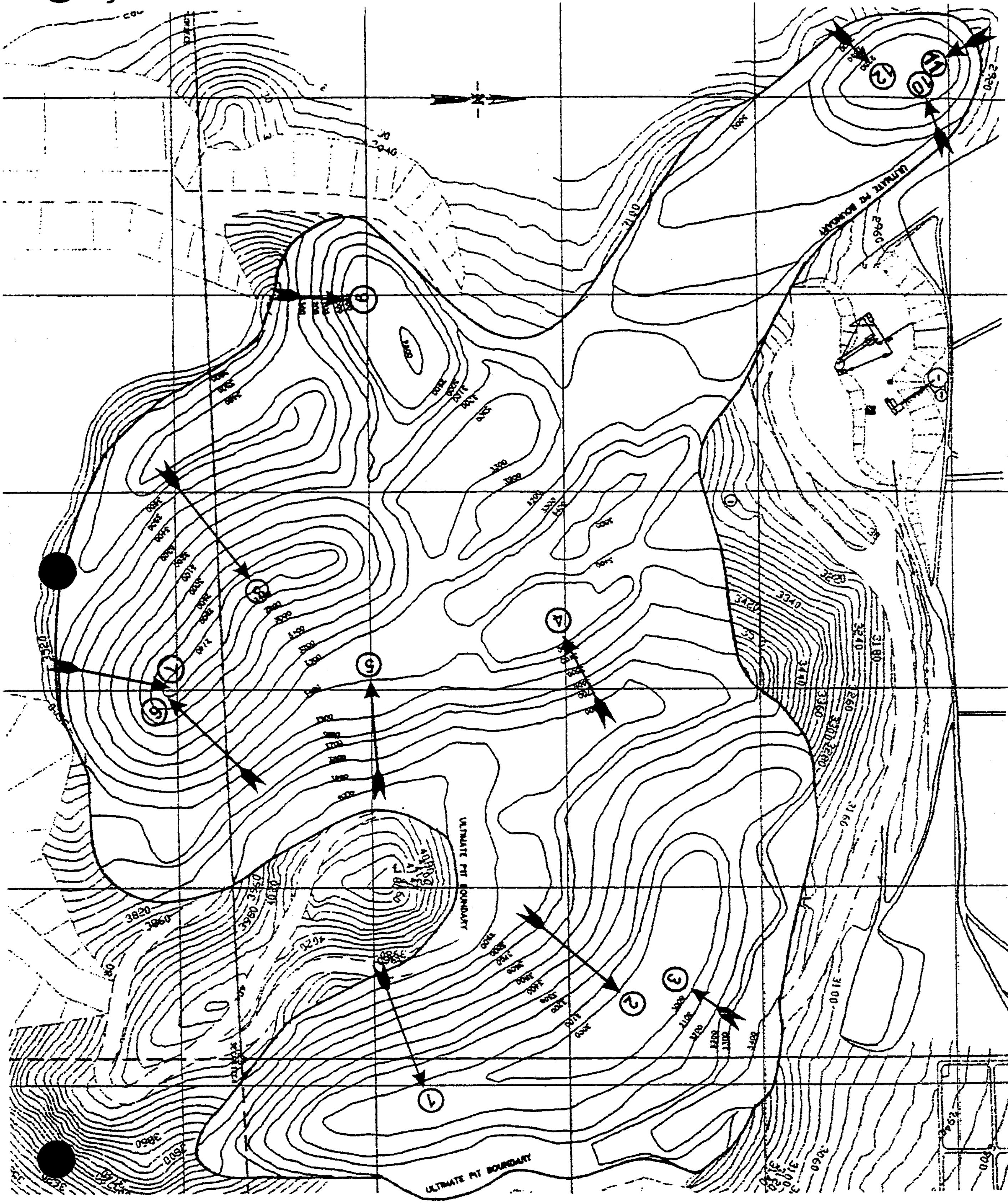
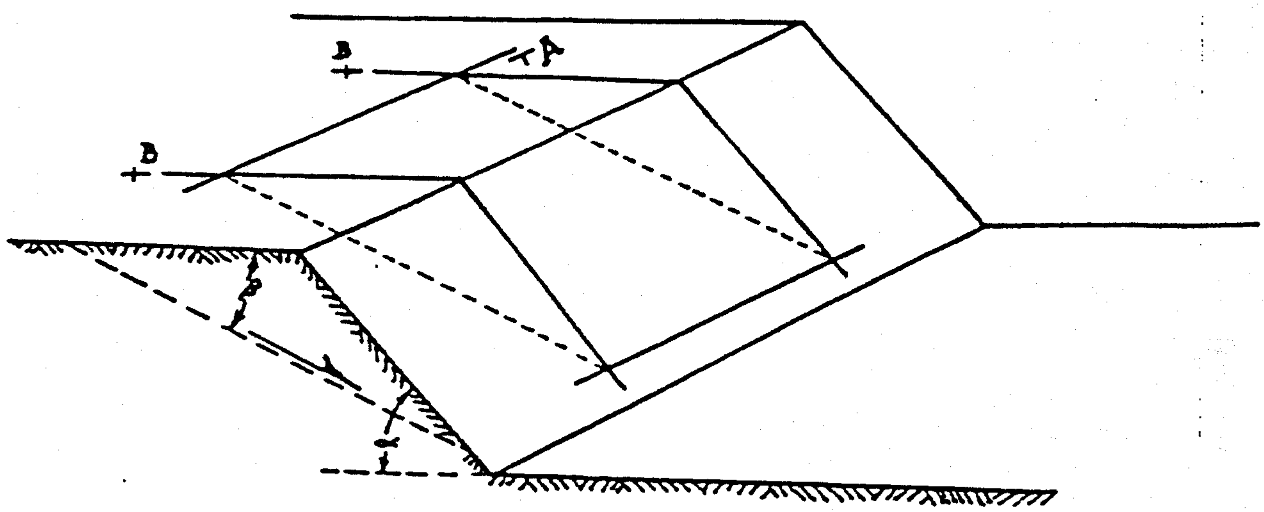
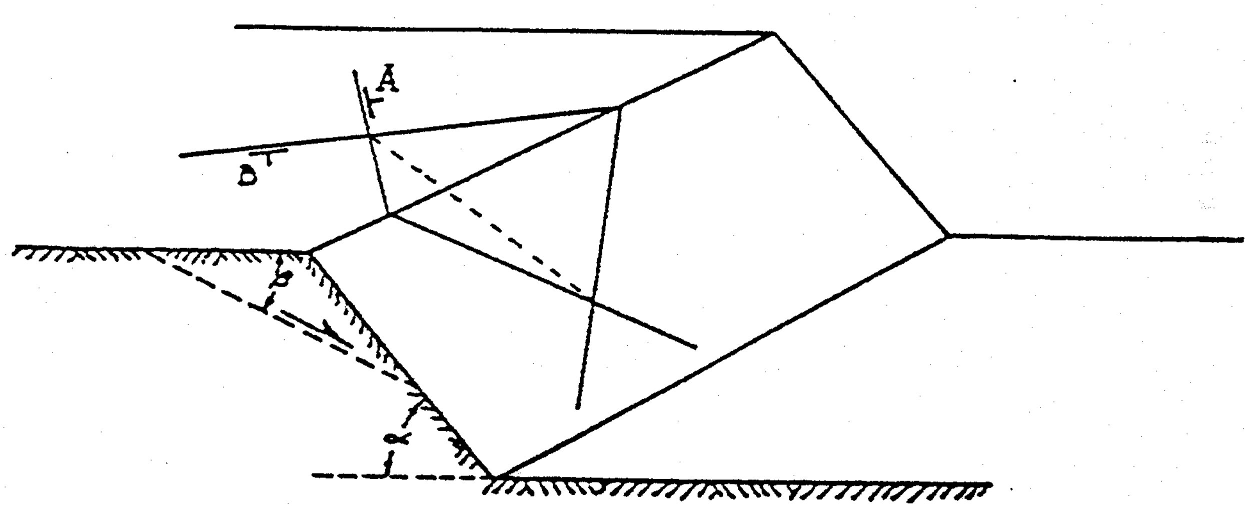


Figure 4. Potential plane and wedge shear failure modes.



Isometric sketch of failure geometry for daylighted plane shear fracture dipping into pit, showing end release fractures.



Isometric sketch of failure geometry for daylighted wedge shear condition, intersection of two fractures plunging into pit.

LIMITING EQUILIBRIUM SLOPE STABILITY ANALYSIS

Daylighted fracture, or joint, sets are potentially subject to plane shear sliding failure whenever the fracture is flatter than the slope angle and steeper than the angle of surface friction of the rock type involved. The wedge formed by two fracture sets is subject to sliding failure when the plunge of their line of intersection plunges flatter than the slope angle, is daylighted, and steeper than the angle of surface friction of the rock type involved. Wedge failures are less common than plane shear failures, possibly because there is more area to shear across each unit of the highwall face. The critical pitwall identified on Figure 3 by the number 3 (Structural Domain 1, rock type Tql) is primarily at risk because of the potential of plane shear sliding along a daylighted fracture. The critical slope highwall identified by number 2 (Structural Domain 12, rock type Tmp) is at risk for plane shear failure. However, a potential wedge shear failure present in the same critical slope has a lower factor of safety. Wedge shear provides the only potential failure mode for the critical highwalls identified by the numbers 4 (Structural Domain 2, rock type Tr), 10 and 12 (Structural Domain 5, rock type Tmp).

PLANE SHEAR SLOPE ANALYSIS

Table 3 presents the limiting equilibrium plane shear factors of safety for the potentially adverse daylighted N20°W striking and 22°SW dipping fracture set in Structural Domain 1 and critical Ultimate Pit Boundary slope 3, as shown on Figure 3. Critical slope 3 is 400 feet high and has a planned 55° overall slope angle. These factors of safety include the maximum credible earthquake acceleration of 0.055 g provided by WZI, Inc. in their letter of December 7, 1995. The following example calculation should explain the calculation of the factor of safety for the dry slope condition, with a one-dimensional estimate of intact rock along the fracture controlled potentially adverse plane shear failure path, subjected to the maximum credible earthquake acceleration.

Weight of potential sliding block - 10730 tons/foot of wall

Gravitational (weight) thrust component = $10730(\text{Sin}22^{o}) = 4020\frac{\text{To}}{\text{ft}}$

Down-dip earthquake thrust component = $10730(0.055) = 590\frac{\text{Ton}}{\text{ft}}$

Total thrust to produce sliding = $4020 + 590 = 4610\frac{\text{Ton}}{\text{ft}}$

Total resistance to sliding = $10830\ \frac{\text{Ton}}{\text{ft}}$ (see November 8, 1995 report)

Factor of safety without maximum credible earthquake =

$$\frac{\text{Sliding Resistance}}{\text{Gravitational Thrust}} = \frac{10830}{4020}$$

Factor of safety with maximum credible earthquake =

$$\frac{\text{Sliding Resistance}}{\text{Gravitational Thrust +Earthquake Thrust}} = \frac{10830}{4020+590} =$$

Table 3. Factors of safety for potentially hazardous plane shear joint set striking N20°W and dipping 22°SW, Domain 1 (Detail Line I), for Ultimate Pit Boundary at GQ-1A (Karma-Wegmann) Pit, under maximum credible earthquake loading.

Quartz Latite Porphyry, overall slope height - 400 ft.

FACTORS OF SAFETY

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	2.34	2.23	2.23	2.76	2.71	2.71
55	2.35	2.24	2.24	2.77	2.71	2.71

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	1.48	1.41	1.41	1.75	1.71	1.71
55	1.48	1.41	1.41	1.76	1.72	1.72

Table 3 also provides factors of safety for fully saturated slopes and for 2-dimensional estimates of intact rock. Figure 5 indicates the fully saturated slope condition examined and the how the pore pressure induced hydraulic uplift force was calculated. The hydraulic uplift force would, if present reduce the normal force acting on the fracture controlled potential failure plane. Reduction of the normal force reduces the frictional resistance to sliding in proportion to the uplift force. The essentially dry condition of the underground workings inspected below the planned pit indicates that the Soledad Mountain Project pit slopes will be dry. Table 3 indicates that the potentially adverse daylighted fracture set just examined should be stable even if the slope were fully saturated when subjected to the maximum credible earthquake.

Plane shear slope failure is possible along potentially adverse fracture orientations in Structural Domain 12 (critical interior slope 2) and in Structural Domain 5 (critical Ultimate Pit Boundary slope 10 and critical Ultimate Pit Boundary slope 12). Table 4 presents the factors of safety for earthquake loading added to the gravitational thrust along the potentially hazardous fracture set that strikes N13°W and dips 51°SW. The factors of safety are for dry and saturated slope hydraulic conditions and for 1-dimensional and 2-dimensional intact rock estimates. Table 5 presents the factors of safety for earthquake loading added to the gravitational thrust along the potentially hazardous fracture set that strikes N50°W and dips 37°SW. Table 6 presents the factors of safety for earthquake loading added to the gravitational thrust along the potentially hazardous fracture set that strikes N13°W and dips 51°NE. The factors of safety are for dry and saturated slope hydraulic conditions and for 1-dimensional and 2-dimensional intact rock estimates.

The decrease in the plane shear factors of safety resulting from the application of the maximum credible site acceleration of 0.055 g does not indicate instability for any of the critical pitwalls potentially at risk for sliding along daylighted fracture sets. This is true, regardless of the hydraulic pore pressure that could possibly develop in any of the pitwalls. It is, however, unlikely that significant pore pressure will be present or will develop in the pitwalls.

Figure 5. Geometric and hydraulic uplift conditions related to calculation of limiting equilibrium slope stability.

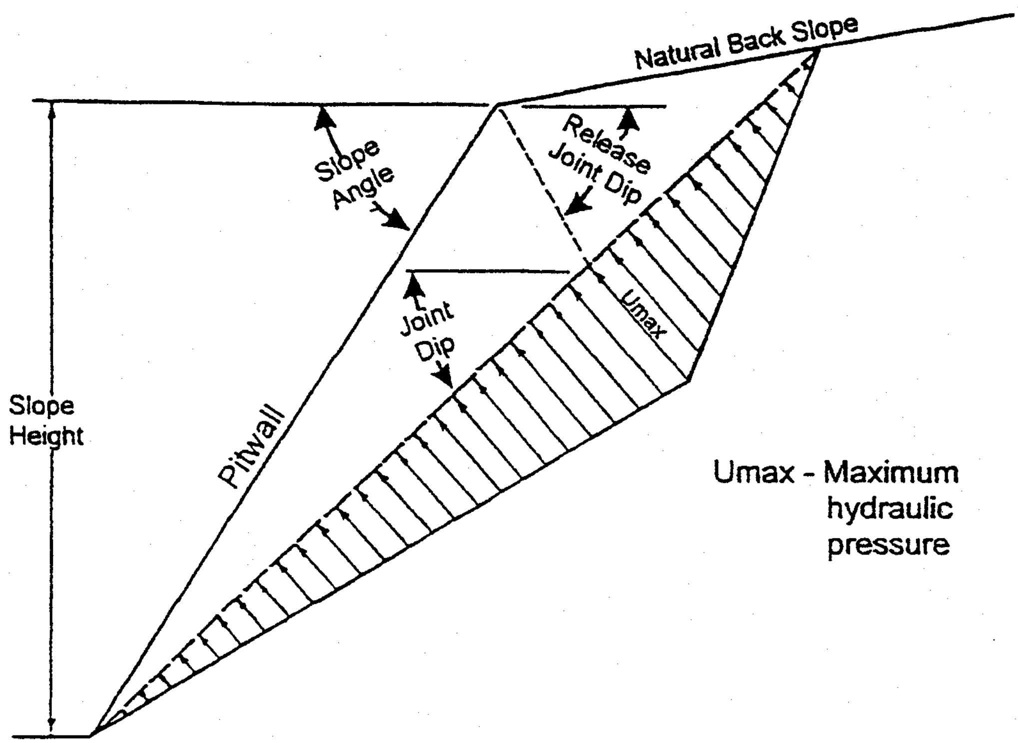


Table 4. Factors of safety for potentially hazardous plane shear joint set striking N13°W and dipping 51°SW, Domain 12 (Detail Lines E + F), on northeast facing pitwall, Domain 12 (Detail Lines E + F), for inside the Ultimate Pit at GQ-1A (Karma-Wegmann) and GQ-1B (Independent) Pits, under maximum credible earthquake loading.

Middle Pyroclastic Unit, overall slope height - 850 ft.

FACTORS OF SAFETY

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	2.23	2.20	2.20	3.78	3.75	3.75
55	5.35	5.32	5.32	9.66	9.63	9.63

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	2.02	2.00	2.00	3.56	3.54	3.54
55	5.14	5.12	5.12	9.43	9.42	9.42

Table 5. Factors of safety for potentially hazardous plane shear joint set striking N50°W and dipping 37°SW, Domain 5 (Detail Lines E + F), for Ultimate Pit Boundary at GQ-2NW Pit (Knight Property) under maximum credible earthquake loading.

Middle Pyroclastic Unit, overall slope height - 240 ft.

FACTORS OF SAFETY

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	7.25	7.02	7.02	12.59	12.43	12.43
55	9.00	8.82	8.82	15.95	15.80	15.80

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	6.67	6.59	6.59	12.03	11.96	11.96
55	8.48	8.40	8.40	15.41	15.33	15.33

Table 6. Factors of safety for potentially hazardous plane shear joint set striking N13°W and dipping 51°NE Domain 5 (Detail Lines E + F), for Ultimate Pit Boundary at GQ-2NW Pit (Knight Property) under maximum credible earthquake loading.

Middle Pyroclastic Unit, overall slope height - 220 ft.

FACTORS OF SAFETY

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope	Confidence Level			Confidence Level		
Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	7.15	7.12	7.12	13.04	13.01	13.01
55	19.25	19.22	19.22	35.82	35.78	35.78

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope	Confidence Level			Confidence Level		
Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	6.94	6.92	6.92	12.79	13.80	12.80
55	19.04	19.02	19.02	35.59	35.57	35.57

WEDGE SHEAR SLOPE ANALYSIS

The potential wedge shear sliding hazards present at the Soledad Mountain Project were analyzed by first determining the bearings, plunges and dihedral angles of potentially hazardous wedge intersections formed by significant fractures sets defined during the detail line mapping described in the November 8, 1995 base report. The same limiting condition criteria govern the development of wedge shear slope failures as do plane shear sliding, i.e. plunge of the line of intersection must be less than the slope face angle and greater than the residual friction angle for the rock type.

Table 7 lists the potentially adverse wedge intersections that were determined from the fracture sets detected in the fracture orientation data mapped along Detail Lines E + F, Domain 5 on the Ultimate Pit Boundary. Table 8 lists the potentially adverse wedge intersection that was determined from the fracture sets detected in the fracture orientation data mapped along Detail Line A, Domain 2, on the Ultimate Pit Boundary. Table 9 lists the potentially adverse wedge intersection that was determined from the fracture sets detected in the fracture orientation data mapped along Detail Lines E + F, Domain 12, a critical slope inside the Ultimate Pit Boundary. These tables indicate the fracture sets producing the potentially adverse wedges and the bearing, plunge and dihedral angle for each of the potentially adverse wedges.

Table 10 provides the calculated factors of safety for the two potentially adverse wedges identified in Structural Domain 5. The driving forces for slope failure along these wedges are the combination of the thrust from the gravitational force for the rock above the worst-case wedge passing through the toe of the slopes plus the maximum credible earthquake acting on the masses. The adverse wedge that bears S21°W is a potential hazard to Critical Slope 10 on Figure 3. The adverse wedge that bears N75°E is a potential hazard to Critical Slope 12 on Figure 3. The addition of the earthquake driving force decreases the factors of safety, but not significantly.

Table 11 provides the calculated factors of safety for the potentially adverse wedge identified in Structural Domain 2. The driving forces for slope failure along this wedge are the combination of the thrust from the gravitational force for the rock above the worst-case wedge passing through the toe of the slope plus the maximum credible earthquake acting on the masses. The adverse wedge bears S36°W is a potential hazard to Critical Slope 4 on Figure 3. Again, the addition of the earthquake driving force decreases the factors of safety, but not significantly.

Table 7. Potentially hazardous wedge intersections at Ultimate Pit Boundary along GQ-2NW Pit (Knight Property), Domain 5 (Detail Lines E + F), Middle Pyroclastic Unit.

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
B - D	N50°W	37°SW	N17°E	83°NW	109°	S21°W	36°
G - H	N82°W	73°NE	N13°W	51°NE	116°	N75°E	50°

Table 8. Potentially hazardous wedge intersection inside Ultimate Pit Boundary, Domain 2 along GQ-5A Pit ; Detail Line A; Aphanitic Rhyolite.

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
A - B	N80°W	38°SW	N03°E	53°NW	123°	S36°W	36°

Table 9. Potentially hazardous wedge intersection inside Ultimate Pit Boundary, Domain 12 in area of GQ-1 Pit (Queen Ester) and GQ-1B Pit (Independent); Detail Lines E + F; Middle Pyroclastic Unit.

Joints Involved	Joint Orientations in Order Strike	Dip	Strike	Dip	Dihedral Angle	Bearing	Plunge
G - H	N82°W	73°NE	N13°W	51°NE	116°	N75°E	50°

Table 10. Factors of safety for potentially hazardous wedge intersections, Domain 5 (Detail Lines E + F), for Ultimate Pit Boundary at GQ-2NW Pit (Knight Property) under maximum credible earthquake loading.

Wedge G - H FACTORS OF SAFETY

Middle Pyroclastic Unit, overall slope height - 240 ft.

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	5.01	4.92	4.92	9.03	8.94	8.94
55	11.33	11.25	11.25	21.05	21.05	21.05

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	4.78	4.72	7.72	8.78	8.73	8.73
55	11.10	11.04	11.04	20.81	20.75	20.75

Wedge B - D FACTORS OF SAFETY

Middle Pyroclastic Unit, overall slope height - 220 ft.

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	6.68	6.43	6.42	11.56	11.33	11.32
55	8.28	8.03	8.02	14.58	14.36	14.35

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
Slope Angle (°)	Confidence Level 80%	98%	99.9%	Confidence Level 80%	98%	99.9%
63.4	6.02	5.91	5.90	10.88	10.77	10.77
55	7.63	7.51	7.51	13.91	13.80	13.80

Table 11. Factors of safety for potentially hazardous wedge intersections, Domain 2 (Detail Line A), for Ultimate Pit Boundary at GQ-5A Pit, under maximum credible earthquake loading.

Wedge A - B FACTORS OF SAFETY

Middle Pyroclastic Unit, overall slope height - 550 ft.

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	2.32	2.21	2.21	3.43	3.34	3.34
55	2.66	2.56	2.56	4.05	3.96	3.96

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	1.71	1.66	1.66	2.73	2.68	2.68
55	2.06	2.01	2.01	3.34	3.30	3.30

Table 12 provides the calculated factors of safety for the potentially adverse wedge identified in Structural Domain 12. The driving forces for slope failure along this wedge are the combination of the thrust from the gravitational force for the rock above the worst-case wedge passing through the toe of the slope plus the maximum credible earthquake acting on that mass. The adverse wedge bears N75°E is a potential hazard to Critical Slope 2 on Figure 3. Again, the addition of the earthquake driving force decreases the factors of safety, but not significantly.

The decrease in the wedge shear factors of safety resulting from the application of the maximum credible site acceleration of 0.055 g does not indicate instability for any of the critical pitwalls potentially at risk for sliding along the wedge formed be intersecting daylighted fracture sets. This is true, regardless of the hydraulic pore pressure that could possibly develop in any of the pitwalls. It is, however, unlikely that significant pore pressure will be present or will develop in the pitwalls.

Table 12. Factors of safety for potentially hazardous wedge intersection on northeast facing pitwall, Domain 12 (Detail Lines E + F), for a highwall inside the Ultimate Pit Boundary at GQ-1 (Queen Ester) and GQ-1B (Independent) Pits, under maximum credible earthquake loading.

Wedge G - H FACTORS OF SAFETY

Middle Pyroclastic Unit, overall slope height - 850 ft.

Dry Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	1.84	1.75	1.74	2.99	2.91	2.90
55	3.63	3.54	3.54	6.40	6.32	6.32

Saturated Slope	1-Dimensional Intact			2-Dimensional Intact		
	Confidence Level			Confidence Level		
Slope Angle (°)	80%	98%	99.9%	80%	98%	99.9%
63.4	1.60	1.55	1.55	2.74	2.69	2.69
55	3.40	3.34	3.34	6.16	6.11	6.11

SUMMARY AND CONCLUSIONS

The 55° overall highwall slope angles planned for the Soledad Mountain Project will not be at risk of failing under the additional forces from the maximum credible site acceleration of 0.055 g. This is true for both the highwalls along the Ultimate Pit Boundary and the pitwalls within the interconnected pits inside the Ultimate Pit Boundary. In fact, pitwall slope angles of 63.4° (two vertical to one horizontal) could resist the additional down-dip thrust from the maximum credible earthquake without triggering a slope failure.

The earthquake slope stability analyses conservatively assumed not only the maximum credible earthquake but that the acceleration from that event was directed in the most adverse possible direction, parallel to the potential sliding surfaces. This conservative application of the maximum credible earthquake acceleration resulted in relatively minor reductions in the calculated factors of safety obtained previously with only the gravitational driving forces, presented in the "Soledad Mountain Project, Slope Stability Analysis", November 8, 1995 report.

JOHN F. ABEL, JR.
MINING ENGINEER

000748

310 LOOKOUT VIEW COURT
GOLDEN, CO 80401
303-279-4901
FAX 278-8163

July 24, 1996

Tony Casagranda
Golden Queen Mining Co., Inc.
P.O. Box 878, Suite #4
Rosamond, CA 93560-0878

Dear Tony:

Table 1 enclosed provide the factors of safety for the critical pit slopes calculated for the modified maximum credible earthquake acceleration of 0.297G. Table 2 is a copy of the calculated factors of safety for the critical pit slopes without any earthquake acceleration.

The "Soledad Mountain Project, Slope Stability Analysis" report, November 8, 1995 presented the method of calculating the resistance to sliding when an adversely oriented fracture set is present in one of the critical slopes. The only adjustment made in this report is the addition of the earthquake produced thrust to the gravitational thrust component.

These factors of safety are extremely conservative and should be considered worst case, because:

1) The earthquake acceleration is assumed to be directed up either the dip of the potential joint controlled failure plane or plunge of the potential joint controlled wedge intersection. The new information that the acceleration is directed along a strike of N45E/S45W would result in only a component of the acceleration acting on any failure plane or intersection direction not oriented in that direction.

2) The proportion of stronger intact rock along a potential failure plane, or planes, was based on a one-dimensional approximation. The conservatism of this assumption is based on the fact that no joint continues indefinitely in any direction.

Table 1. Relative stability of planned dry slopes under maximum credible (0.297G) earthquake acceleration.

Location Information				Slope Height (ft)	Slope Angle (°)	Factor of Safety @ Confidence Level		
Side of Pit	Structural Domain	Rock Type	Slope Ident.			80%	98%	99.9%
East	11	Tup	1	800	63.4°	Failure paths >		
					55°	possible slopes		
	12	Tmp	2	850	63.4°	1.42	1.35	1.35
					55°	2.81	2.74	2.74
	1	Tql	3	400	63.4°	1.50	1.43	1.43
					55°	1.50	1.43	1.43
North	2	Tr	4	550	63.4°	1.68	1.61	1.61
					55°	1.93	1.86	1.86
Northwest	5	Tmp	10	240	63.4°	3.87	3.80	3.80
					55°	6.71	6.57	6.57
			11	180	63.4°	No failure path		
					55°			
			12	220	63.4°	4.85	4.67	4.66
					55°	6.01	5.83	5.82
West	8	Trp	9	650	63.4°	Failure paths >		
					55°	possible slopes		
South			8	1100	63.4°	Failure paths <		
					55°	residual friction		
	10	Trp	7	780	63.4°	Failure paths <		
					55°	residual friction		
			6	700	63.4°	No failure path		
					55°			
	11	Trp	5	600	63.4°	Failure paths >		
					55°	possible slopes		

Table 2. Relative stability of planned dry slopes, without earthquake acceleration.

Side of Pit	Location Information Structural Domain	Rock Type	Slope Ident.	Slope Height (ft)	Slope Angle (°)	Factor of Safety @ Confidence Level 80%	98%	99.9%
East	11	Tup	1	800	63.4°	Failure paths >		
					55°	possible slopes		
	12	Tmp	2	850	63.4°	1.97	1.87	1.87
					55°	3.89	3.80	3.79
	1	Tql	3	400	63.4°	2.69	2.56	2.56
					55°	2.69	2.57	2.57
North	2	Tr	4	550	63.4°	2.53	2.42	2.42
					55°	2.91	2.80	2.80
Northwest	5	Tmp	10	240	63.4°	5.37	5.28	5.27
					55°	12.19	12.09	12.09
			11	180	63.4°	No failure path		
					55°			
			12	220	63.4°	7.30	7.02	7.01
					55°	9.05	8.78	8.77
West	8	Trp	9	650	63.4°	Failure paths >		
					55°	possible slopes		
South			8	1100	63.4°	Failure paths <		
					55°	residual friction		
	10	Trp	7	780	63.4°	Failure paths <		
					55°	residual friction		
			6	700	63.4°	No failure path		
					55°			
	11	Trp	5	600	63.4°	Failure paths >		
					55°	possible slopes		

I hope this fulfills your requirements.

Sincerely,

John F. Abel, Jr.

John F. Abel, Jr.
Colorado P.E. 5642

Reviewed by:

The Glasgow Engineering Group, Inc.

REGISTERED PROFESSIONAL ENGINEER
DON ANDREW POOLER
Sept 6, 1996
No. C-32075
Exp. 8-23-97
CIVIL
STATE OF CALIFORNIA

THE GLASGOW ENGINEERING GROUP, Inc.
7393 South Everett Ct.
Littleton, Colorado 80123
Phone No. (303) 904-4614
Fax No. (303) 979-8166

August 29, 1996

Mr. Tony Casagranda
Golden Queen Mining Company, Inc.
P.O. Box 878
Rosamond, California 93560-0878

Re: Soledad Mountain Project Pit Slope Stability Review

Dear Tony,

The open pit slope stability study by Mr. John F. Abel, Ph.D. for the Soledad Mountain Project has been reviewed by the Glasgow Engineering Group, Inc. (Glasgow Engineering). The review was conducted by Mr. Don A. Poulter, P.E., of Glasgow Engineering. Mr. Poulter is a qualified Registered Professional Engineer in the State of California. This review was completed as requested by Golden Queen Mining Company, Inc. (GQMC) and in full knowledge of Mr. Abel. The reports by Mr. Abel listed below were presented for review by Glasgow Engineering.

November 8, 1995 - "Soledad Mountain Project, Slope Stability Analysis";

December 11, 1995 - "Earthquake Stability Supplement, Soledad Mountain Project,Slope Stability Analysis";

July 24, 1996 - Letter Report supplement to report of December 11, 1995; and

Letter correspondence to Mr. Abel (with attached WZI report dated June 11, 1996) for which the July 24, 1996 letter report is based upon.

It is my opinion that the stability analyses presented by Mr. John F. Abel, Jr. (State of Colorado P.E. No. 5642) represent the anticipated stability of the proposed open pit at the Soledad Mountain Project. This is based upon the findings of my review and understanding of the above referenced data and reports, and my knowledge of the project. It is my recommendation that joint and fracture patterns in the pit wall be recorded as the pit is developed and compared with the data used in the analyses. In the event that data different from that used in the analyses is collected from the exposed pit slopes, the pit slope stability should be re-evaluated using the field data.

Thank you for this opportunity to work with you on the Soledad Mountain Project. If you should have any questions regarding our review or the contents of this letter, please call me.

Sincerely,
The Glasgow Engineering Group, Inc.

Don A. Poulter

Don A. Poulter, P.E.
President

THE GLASGOW ENGINEERING GROUP, INC.
7393 South Everett Ct.
Littleton, Colorado 80123
Phone No. (303) 904-4614

October 25, 1996

Mr. Tony Casagranda
Golden Queen Mining Corporation
2997 Desert Street, Suite 4
Rosamond, California 93560-0878

Re: Slope Stability Evaluation for the Soledad Mountain Project Mine Overburden Disposal Piles

Dear Tony:

We have completed the slope stability evaluation for the mine overburden disposal piles currently proposed for the Soledad Mountain Project. The scope of this study was to re-evaluate the stability of the overburden disposal piles with respect to the updated seismic data provided by WZI, Inc. The layout shown in Figure 1 was provided by Golden Queen Mining Company, Inc. (GQMC). Other data provided by GQMC included design data from the pit slope stability study conducted for GQMC by Dr. John Abel and the seismicity report for the project area. A summary of the evaluation, findings, and recommendations are presented in this letter report.

Slope stability analyses were performed for critical sections at three locations as shown on Figure 1. The selection of these locations was based on existing topography, the proposed configurations of overburden piles and geologic foundation conditions. Cross sections of the overburden piles at these locations were modeled as end-dumped material with reclaimed slopes at the close of the project. It is understood that the slope of the working faces will be at about 1.5H:1V (horizontal to vertical) and will be reclaimed to an overall slope of 1.8H:1V as shown in Figures 2 through 7. Sections A-A' and C-C' include benches as shown in plan view of the disposal area. Both static and psuedostatic seismic loading conditions were included in the slope stability analyses.

The overburden pile stability of the three section locations shown in Figure 1 was evaluated using limit equilibrium methods with the aid of XSTABL. XSTABL is a two-dimensional limit equilibrium slope stability computer program developed at Purdue University. Both circular and wedge shaped failure surfaces were analyzed under static and pseudostatic earthquake loading conditions. Analyses were performed using the Bishop method for circular failure surfaces and the Janbu method for wedge shaped surfaces. Wedge shaped surfaces through the overburden and/or foundation materials near the overburden/foundation contact were considered. The stability of these slopes under earthquake conditions was analyzed using psuedostatic procedures where an additional out of slope inertial force equal to some fraction of the anticipated peak horizontal bedrock acceleration is included in the horizontal direction when performing the analysis. For these analyses, a horizontal inertial force equal to one-half of the magnitude of the anticipated peak horizontal bedrock acceleration was used as an estimate of the effects of earthquake motions on stability. Topographic amplification of the peak bedrock acceleration was not considered necessary for this evaluation. The characteristics of the waste rock piles do not warrant such an analysis. The only potential effect such an occurrence would have on the waste pile would possibly be some sloughing of the crest line. Acceleration at the base of the pile would not substantially change or impact the mass stability of the waste pile.

Shear strength parameters and material properties used in the slope stability analyses are summarized in Table 1. These strength parameters were based on typical values for waste rock material, and data from the mine slope stability study. Foundation material properties were based on data from the mine slope stability study and foundation explorations in other areas of the project. The values selected for use in this evaluation are considered to be conservative, but within the range of values expected for the types of material to be encountered, and for end-dump placement of the waste rock. The estimated peak horizontal ground acceleration for this project was 0.4g. The estimated ground acceleration was multiplied by a factor of 0.5 to calculate the psuedostatic coefficient for this evaluation, as mentioned above. This factoring of the peak bedrock acceleration is recommended for slope stability evaluations using pseudostatic procedures.

The foundation in the vicinity of sections A-A' and B-B' appears to consist of deposits of alluvial fill and bedrock. The foundation in the vicinity of section C-C' appears to consist of only bedrock. Based on the available borehole data provided by GQMC, the ground water level is approximately 200 feet below the waste piles and have no impact on the stability of the waste rock piles.

Results of the slope stability analyses are summarized in Table 2. The critical failure surfaces for both static and pseudo-static loading conditions at each of the three locations are shown on Figures 2 through 7. These results show that the waste piles reclaimed at 1.8H:1V overall slopes will be stable under static conditions and earthquake loading conditions as modeled in the analyses. The slope face during operation will be at the angle of repose of the material. These slopes should be stable under static loading conditions. Some sloughing of the slope face will probably occur in the event of seismic loading at the site. Once the waste piles are being constructed and can be observed, these evaluations may be reviewed to determine whether or not the waste piles may remain at the angle of repose upon closure of the site.

The estimated factors of safety are believed to be conservative based on the input parameters used in the analyses and that only 'short-term' conditions were considered in the model. With time, the overburden materials will settle and consolidate under self-weight loading conditions. This will result in a more dense mass of material which in turn will exhibit an increase in the shear strength parameters (particularly in the internal friction parameter(∅)). Often times, upon consolidation, the overburden mass will also exhibit significant cohesive properties as vertical or near vertical slopes result at the working face when excavating the material. Also, in end-dumped overburden piles such as those proposed for the Soledad Mountain Project, segregation of particle sizes occurs as the material slides down the face of the pile. This results in coarse, blocky material in the base of the pile with particle sizes decreasing up the slope. The shear strength parameter base of the overburden pile is, therefore, usually significantly higher (plus 40° ∅) than the upper portion of the overburden pile. This in turn results in a more stable overburden pile than that modeled in this evaluation.

Considering the above information and results of the waste rock slope stability evaluation summarized in this letter report, it is my professional opinion and judgment that the proposed waste rock piles will be stable under short term and long term conditions, with respect to deep seated failures in the overburden pile. In the event the seismicity of the project area is revised to a more active region or the overburden materials of different properties and shear strength parameters from those described for this evaluation, the stability results, findings, and recommendations contained in this letter report may not be valid for representing the stability of the proposed overburden piles.

We appreciate having the opportunity to work with you on this project and hope this addresses your needs. If you have any comments or questions regarding these analyses, please do not hesitate to call.

Sincerely,

The Glasgow Engineering Group, Inc.

Don A. Poulter
President

REGISTERED PROFESSIONAL ENGINEER
DON ANDREW POULTER
Oct 25, 1996
No. C-32075
Exp. 8/23/97
CIVIL
STATE OF CALIFORNIA

DAP:mfb
Enclosures

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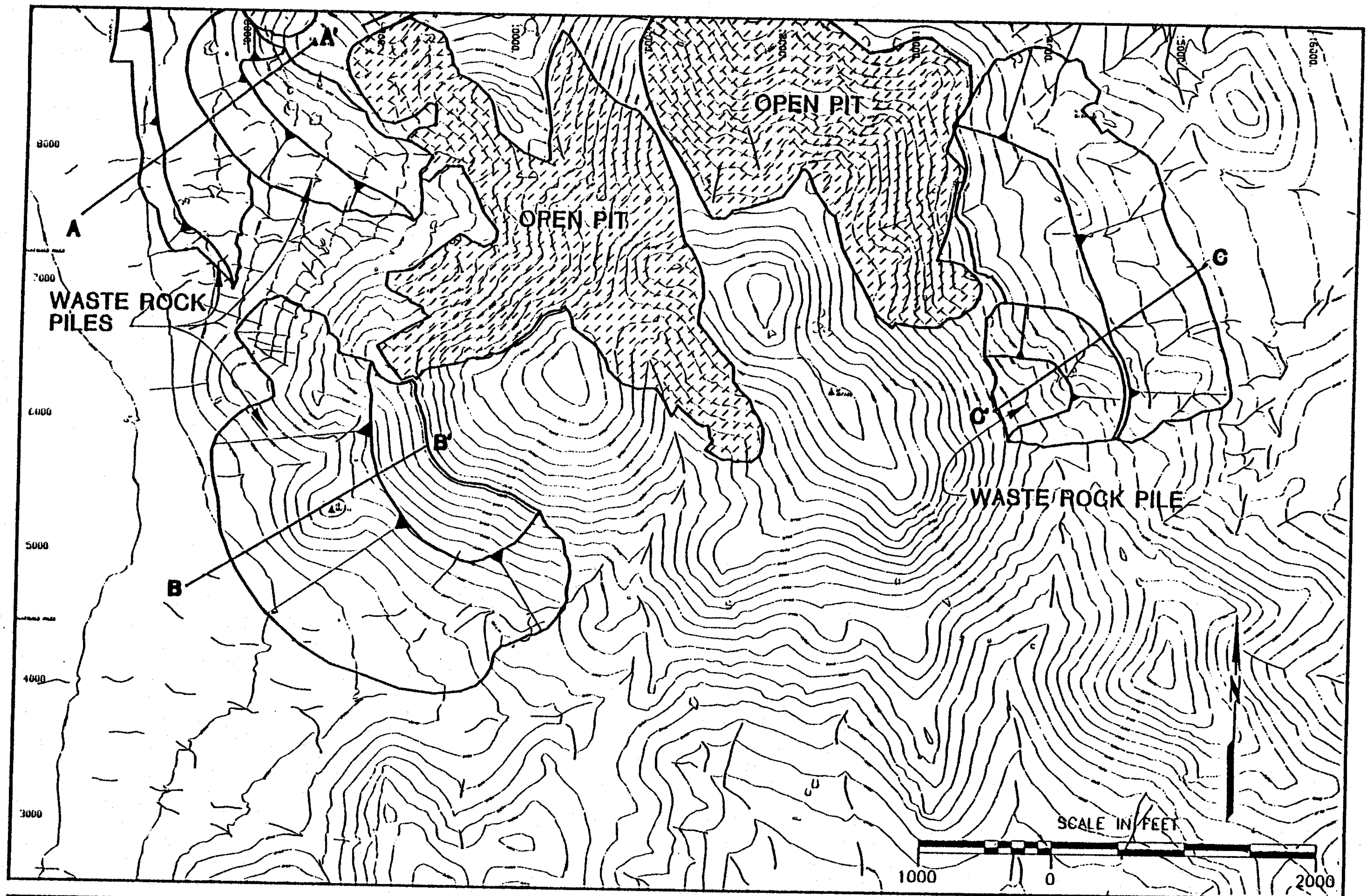
Table 1 - Summary of Material and Shear Strength Parameters

MATERIAL TYPE	MOIST UNIT WEIGHT (lb/f^3)	SATURATED UNIT WEIGHT (lb/f^3)	FRICTION ANGLE (degrees)	COHESION (psf)
Waste Rock	120	125	37	500
Bedrock	150	150	45	1000
Alluvial Fill (Sections A and B)	95	100	30	0

Table 2 - Summary of Results of Stability Analyses for 1.8 : 1 Slopes (H :V)

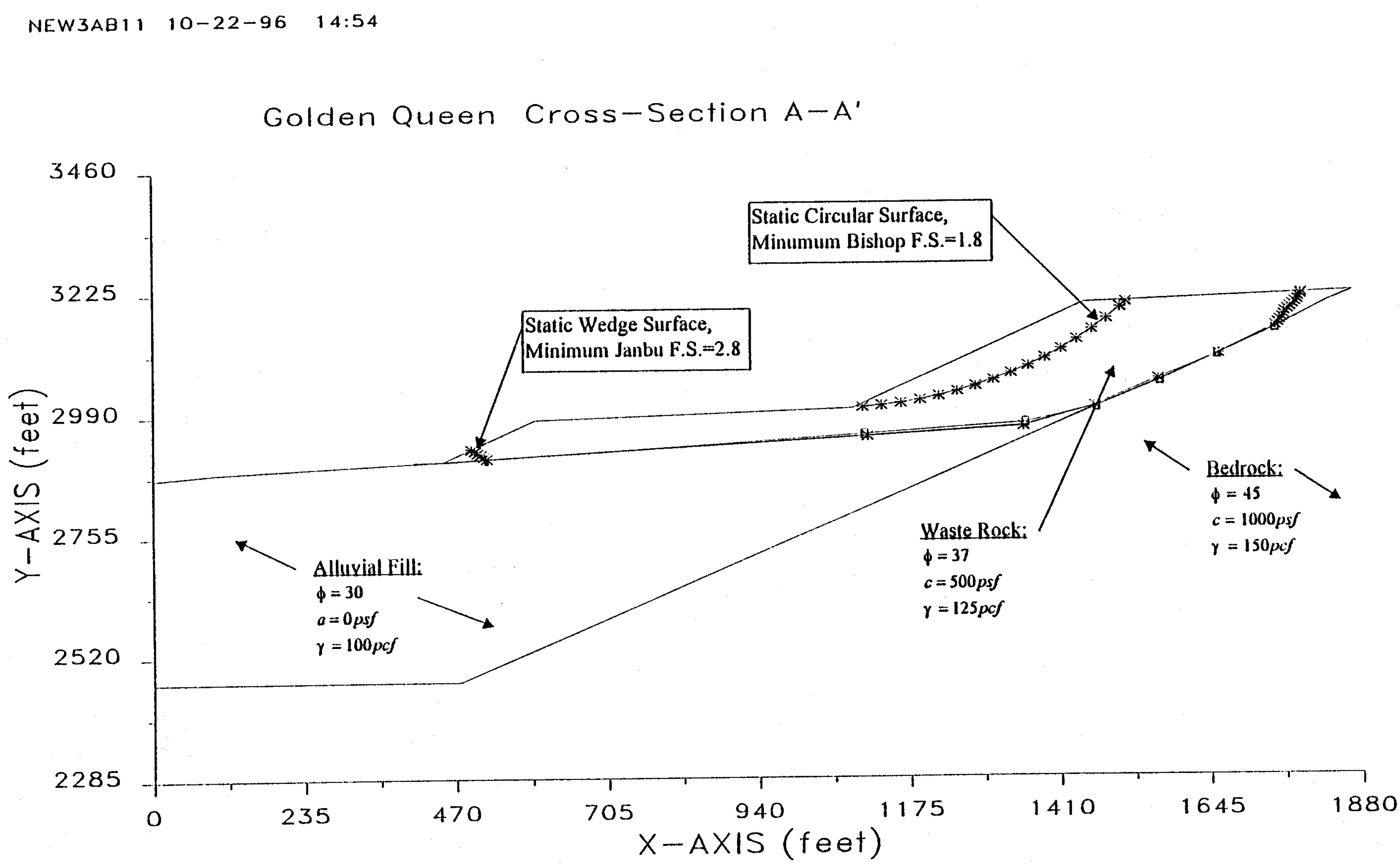
SECTION	Static Factor of Safety		Seismic Factor of Safety (at $K_H = 0.20g$)	
	Circular Surface	Wedge-Type Surface	Circular Surface	Wedge-Type Surface
A-A' at 1.8 to 1 Inter-bench Slope	1.8	2.8	1.2	1.5
B-B' at 1.8 to 1 Overall Slope	1.7	1.8	1.1	1.2
C-C' at 1.8 to 1 Inter-bench Slope	1.9	2.4	1.2	1.5
Minimum Acceptable Factor of Safety	1.3	1.3	1.1	1.1



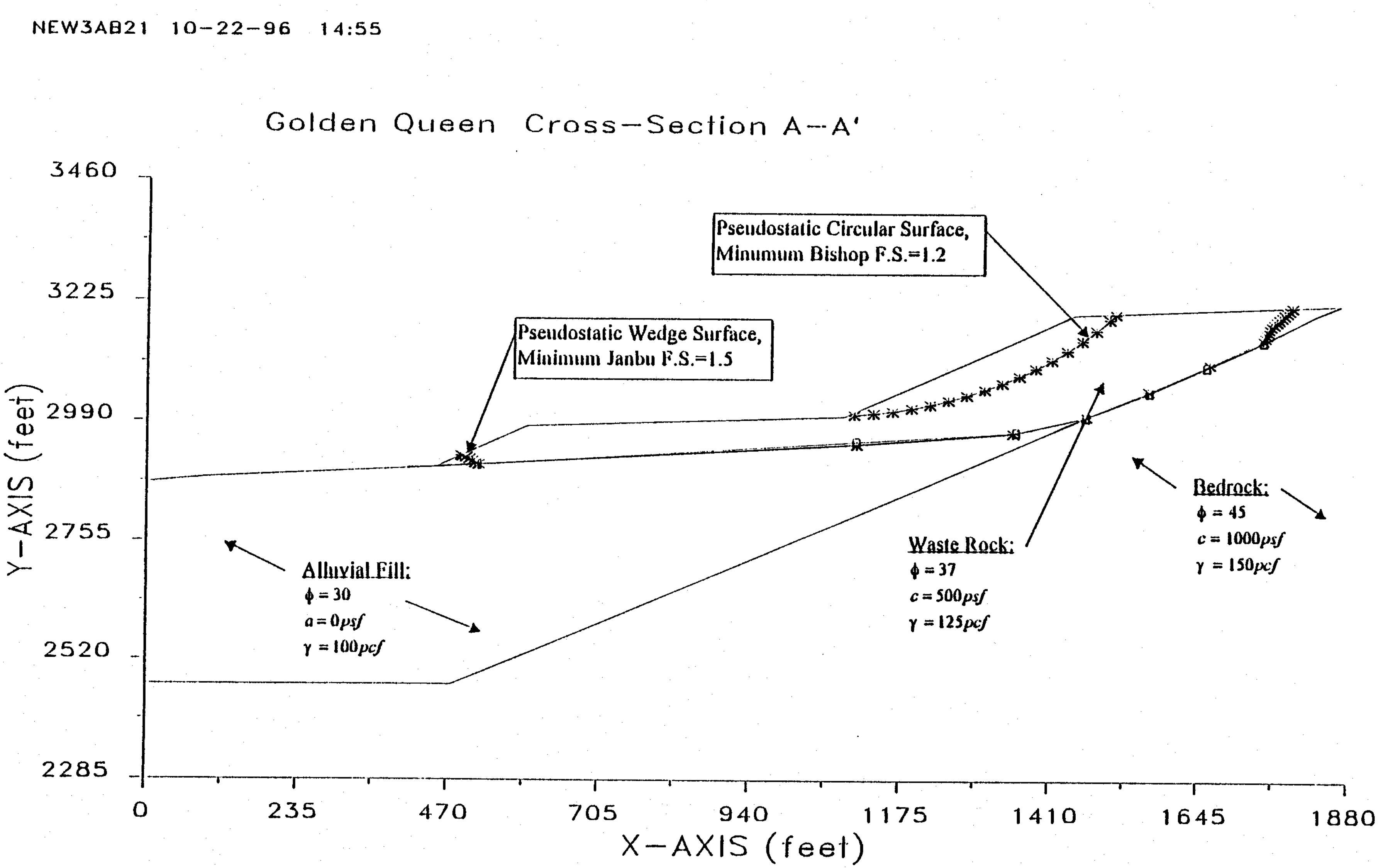
Golden Queen Mining Co.
2997 Desert St. Suite 4
Rosamond, CA 93560-0878

FIGURE 1
LOCATION OF STABILITY SECTIONS

Date: OCT. 1996
Project: 01701
File: 17-650\XSTAB



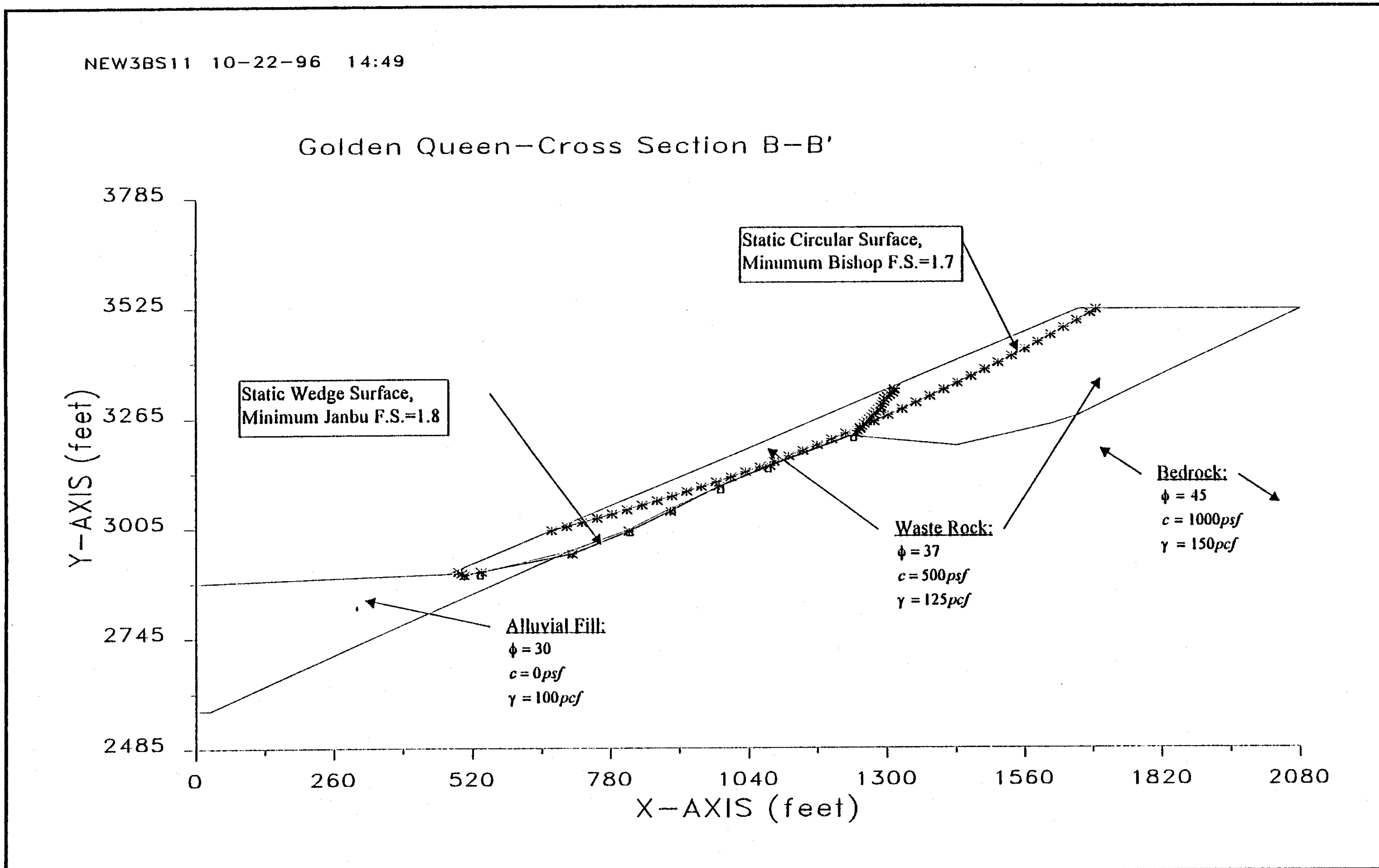
Golden Queen Mining Co. 2997 Desert St., Suite 4 Rosamond, CA 93560-0878	FIGURE 2 WASTE ROCK SECTION A-A' Static Analyses with 1.8 : 1 Side Slopes	Date: October 1996 Project: 01701 File: 17-650\stbfig2.doc



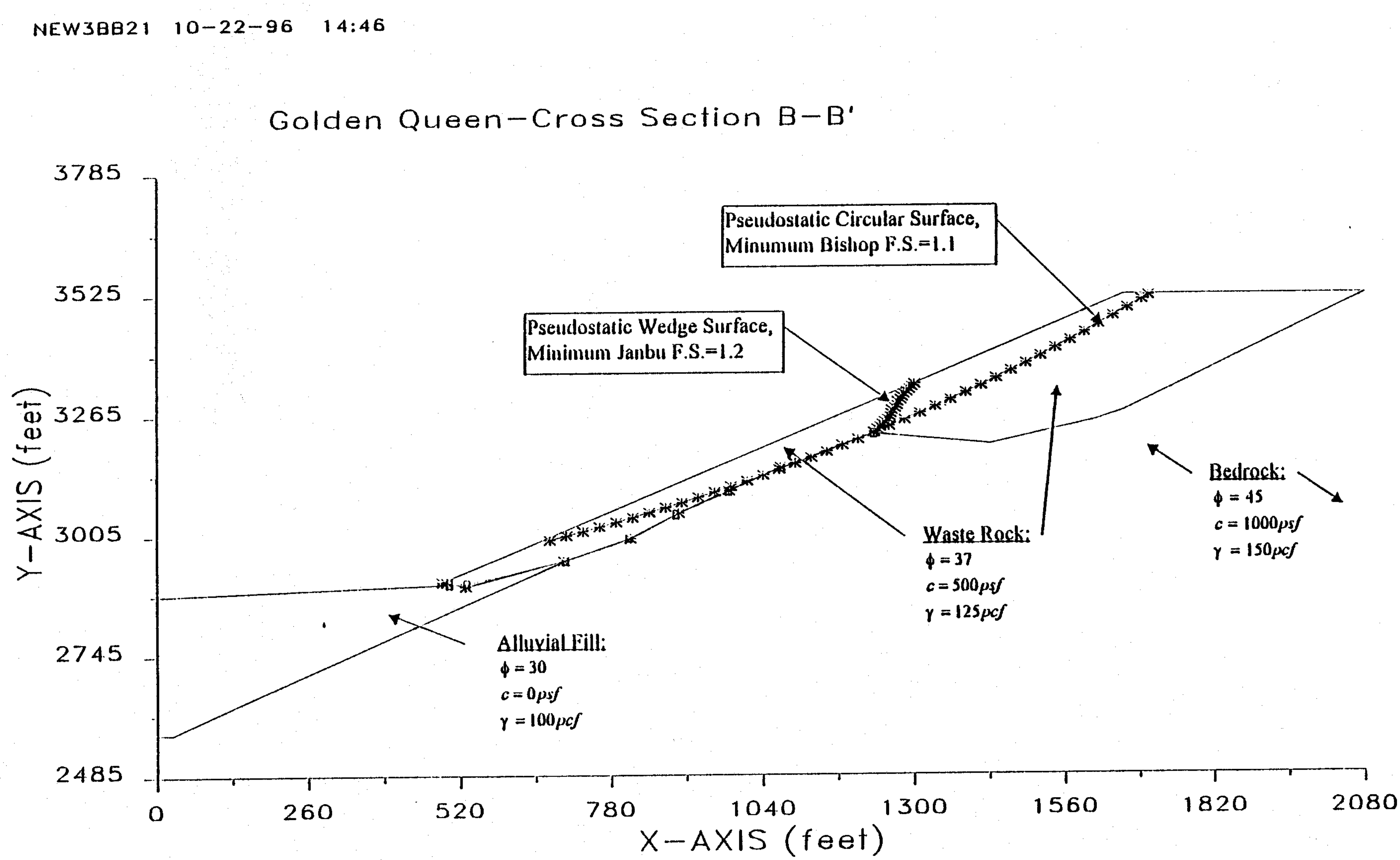
Golden Queen Mining Co.
2997 Desert St., Suite 4
Rosamond, CA 93560-0878

FIGURE 3
WASTE ROCK SECTION A-A'
Pseudostatic Analyses with K_h=0.2g, 1.8 : 1 Side Slopes

Date: October 1996
Project: 01701
File: 17-650\stbfig3.doc



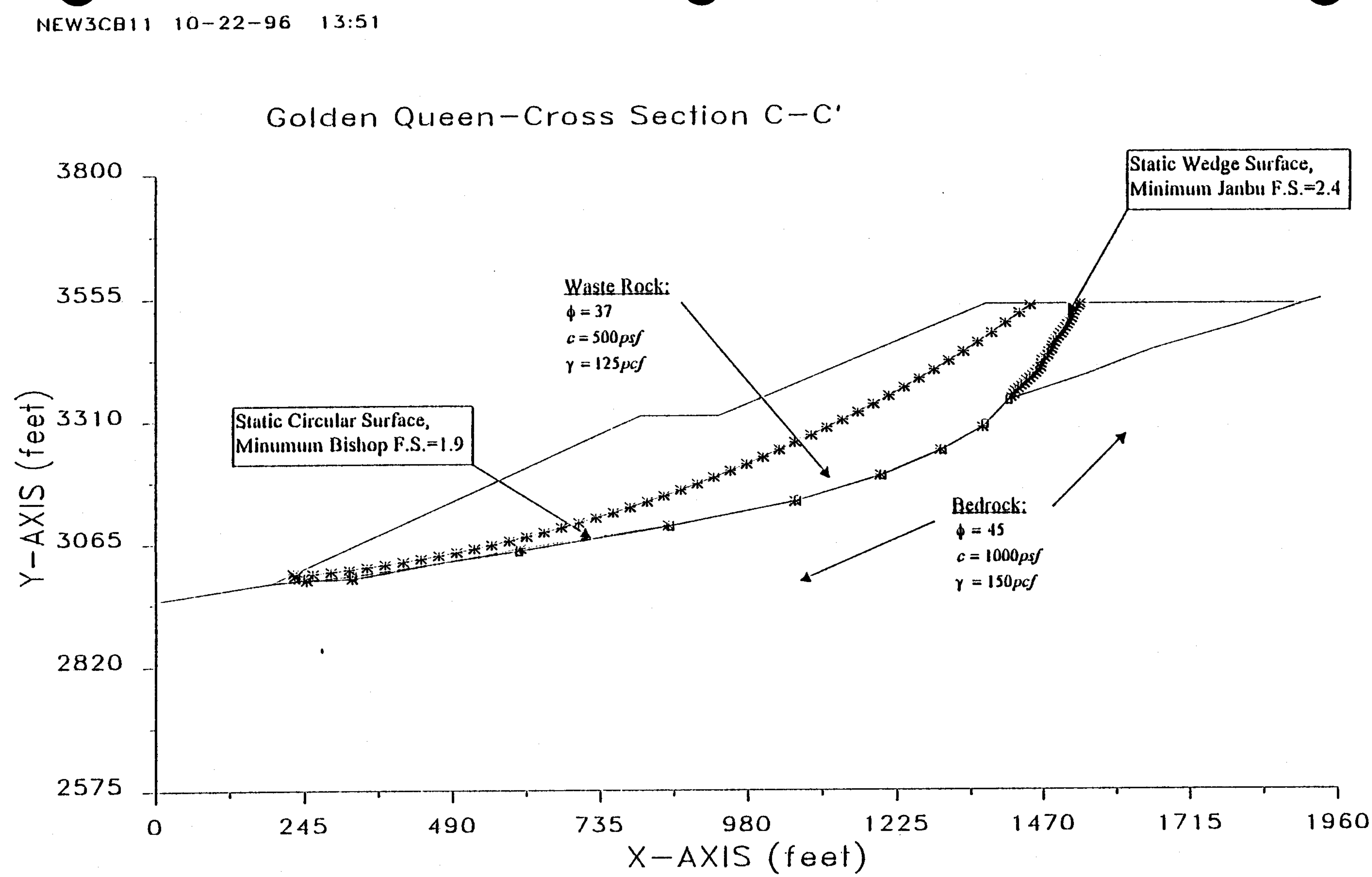
Golden Queen Mining Co. 2997 Desert St., Suite 4 Rosamond, CA 93560-0878	FIGURE 4 WASTE ROCK SECTION B-B' Static Analyses with 1.8 : 1 Side Slopes	Date: October 1996 Project: 01701 File: 17-650\stbfig4.doc



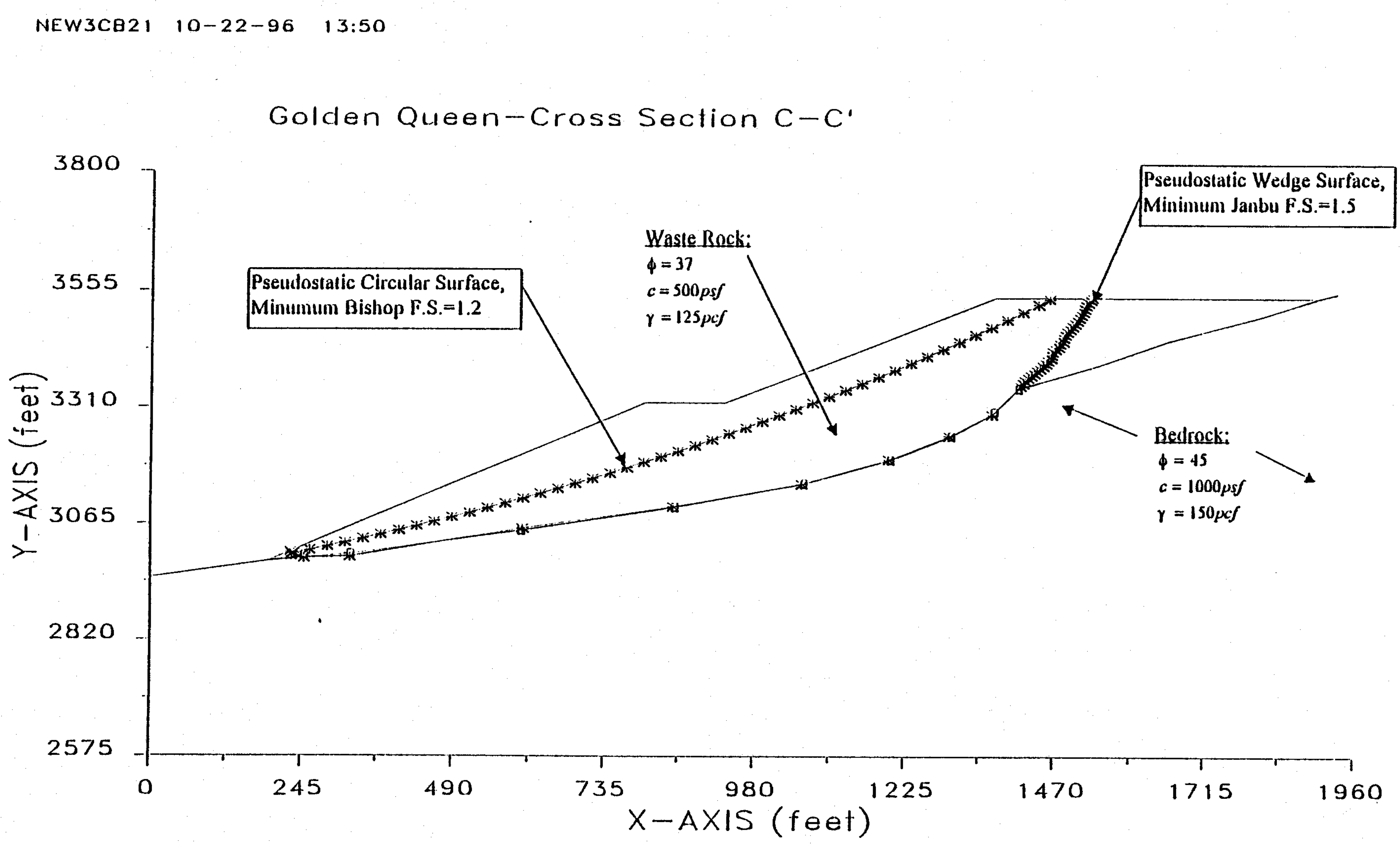
Golden Queen Mining Co.
2997 Desert St., Suite 4
Rosamond, CA 93560-0878

FIGURE 5
WASTE ROCK SECTION B-B'
Pseudostatic Analyses with K_h=0.2g, 1.8 : 1 Side Slopes

Date: October 1996
Project: 01701
File: 17-650\stbfig5.doc



Golden Queen Mining Co. 2997 Desert St., Suite 4 Rosamond, CA 93560-0878	FIGURE 6 WASTE ROCK SECTION C-C' Static Analyses with 1.8 : 1 Side Slopes	Date: October 1996 Project: 01701 File: 17-650\stbfig6.doc



Golden Queen Mining Co. 2997 Desert St., Suite 4 Rosamond, CA 93560-0878	FIGURE 7 WASTE ROCK SECTION C-C' Pseudostatic Analyses with K_H=0.2g, 1.8 : 1 Side Slopes	Date: October 1996 Project: 01701 File: 17-650\stbfig7.doc

DEC 0 9 1996

THE GLASGOW ENGINEERING GROUP, Inc.
7393 South Everett Court Phone No. (303) 904-4614
Littleton, Colorado 80123 Fax No. (303) 979-1833

December 5, 1996
Project No. 00704

Golden Queen Mining Company, Inc.
11847 Gempen Street
Mojave, California 93501

Attention: Mr. Tony Casagranda

Re: **Pit Slope Seismic Stability**

Dear Tony:

An evaluation of the potential influence of topographic amplification of seismic forces on the stability of the pit slopes has been made per your request. The evaluation included the review of the geotechnical data and pit slope stability analyses presented in the reports by Mr. John Abel, Jr. dated November 11, 1995, December 11, 1995 and July 24, 1996.

Topographic amplification of seismic forces is not likely to have an impact on the stability of the pit slopes during the operations of the Soledad Mountain Project. Based on the data presented in the above referenced reports, there are no critical slopes or joint patterns that control the slope stability in any area of the pit. The estimated factors of safety (FOS) against slope failures presented in the above referenced analyses are sufficiently conservative such that moderate increases in forces contributing to slope movement (such as amplified ground accelerations) would not adversely impact the stability of the pit slopes. This does not preclude the occurrence of raveling of loose slope materials during a seismic event that results in ground motions at the site.

It is recommended that the slope stability input parameters be checked as the pit is developed and joint and fracture are exposed in the pit walls. Should these or any other occurrence be adversely different from the data used in the analyses, the pit slope stability should be re-evaluated using the new data. Also, the pit slope stability should be checked in the event the seismicity of the region is updated to show potentially stronger ground motions at the site.

If you should have any questions or require additional information concerning the contents and opinions presented in this letter, please call me.

Sincerely,
The Glasgow Engineering Group, Inc.

Don A. Poulter, P.E.
President

REGISTERED PROFESSIONAL ENGINEER
DON ANDREW POULTER
Dec 5, 1996
No. C-32075
Exp. 9-23-97
CIVIL
STATE OF CALIFORNIA

DEC 0 6 1996

Attachment D

COUNTY OF KERN

RECLAMATION AND REVEGETATION PROCEDURES FOR SOLEDAD MOUNTAIN PROJECT

Prepared for:
Kern County Planning Department

Submitted by:
Golden Queen Mining Company, Inc.

Prepared by:
Bamberg Associates
Samuel A. Bamberg, Ph.D.
Reclamation Specialist

January, 1996

Revised December, 1996

Revised March, 1997

TABLE OF CONTENTS

1.0 INTRODUCTION

This plan presents reclamation details for the Soledad Mountain Project, a proposed gold mine on Soledad Mountain in Kern County, California. The project is operated by Golden Queen Mining Company, Inc. (GQMC). The plan is in compliance with Kern County requirements (FORM A175.PDS, 8/93) and the California Surface Mining and Reclamation Act of 1975 (SMARA), as amended. It will also address specific site-related reclamation concerns expressed by the Bureau of Land Management (BLM) and Kern County Planning Department during the scoping process. This is an individual document prepared specifically for the Soledad Mountain Project as proposed in the EIS/EIR. Reclamation standards are now required by SMARA 1975 (1993 Statues, and promulgated as DMG Note 26, Revised January 1994, and amended February 1994). This plan meets the California Code of Regulations, Article 9, Reclamation Standards.

The techniques were prepared to comply with the requirements of the California Regional Water Quality Control Board. This reclamation plan focuses on the procedures involved in establishing a productive ecosystem through revegetation and wildlife habitat development, and achieving visual compatibility with the surrounding landscape. Visual impacts will be mitigated by breaking up straight lines and establishing vegetation and habitats. This is a working document and a practical approach to reclamation in this area of the Mojave Desert with low, unpredictable rainfall. The recommended methods and criteria form the basis for construction and operational procedures for reclamation enhancement at the mine closure.

The Site Drainage Plan will include the on-site roads, crushing site, process plant site, maintenance site, office site, overburden material piles and site drainage. Portions of the crushing, process, maintenance and office site will involve engineered fill. These areas are part of the detailed project design engineering which is currently in progress and will be available at a later date to supplement the information presented in this document.

Bamberg Associates, which prepared these procedures, has recently conducted revegetation testing programs at several desert mining locations in California, forming the basis for several procedures proposed here. The natural revegetation that has already occurred on previously disturbed portions of the Soledad project site also served as a basis for determining the plant species and topographic features necessary for successful reclamation. The testing programs and observations of this natural revegetation have been used also as a basis for reclamation techniques, seed sources and plant species selection, and topographic modification. Techniques and alternatives for reclamation of altered terrain left after mining and ore processing are also discussed in this plan.

The Reclamation Procedures are intended to address pertinent issues relating to successful reclamation implementation by GQMC at the Soledad Mountain Project. This report provides coordination procedures for the final decommissioning process at mine closure.

Two bonds are required, one for reclamation held by Kern County, and the other for Closure and Post-Closure maintenance that is intended to cover the cost of the physical closure and decommissioning procedures held by the Lahontan RWQCB. The bond for reclamation will be held by Kern County under SMARA, and relates to the interim reclamation as revegetation testing for this mine site, and reclamation costs for the mining project.

The cost estimate for closure and post closure maintenance will be contained in the report of waste discharge document.

2.0 PROJECT OVERVIEW

The Soledad Mountain Project is located in Kern County, California, on the western edge of the Mojave Desert. The project involves open-pit mining of gold-bearing ore, development of overburden piles, and beneficiation by heap leaching processes. The components of the Soledad project are shown in Figure 2.1.

Of the total project area of 1,600 acres, the total disturbance acreage for the Soledad Mountain Project is estimated to be approximately 930 acres. See Table 2.1 for a breakdown of disturbance acreage by project component. Not all of the permitted land is projected to be disturbed, and not all disturbed land will be revegetated. The proposed acres to be revegetated are estimated at 419 acres, and are less than the disturbed acreage due to steep slopes in the open pits and overburden piles.

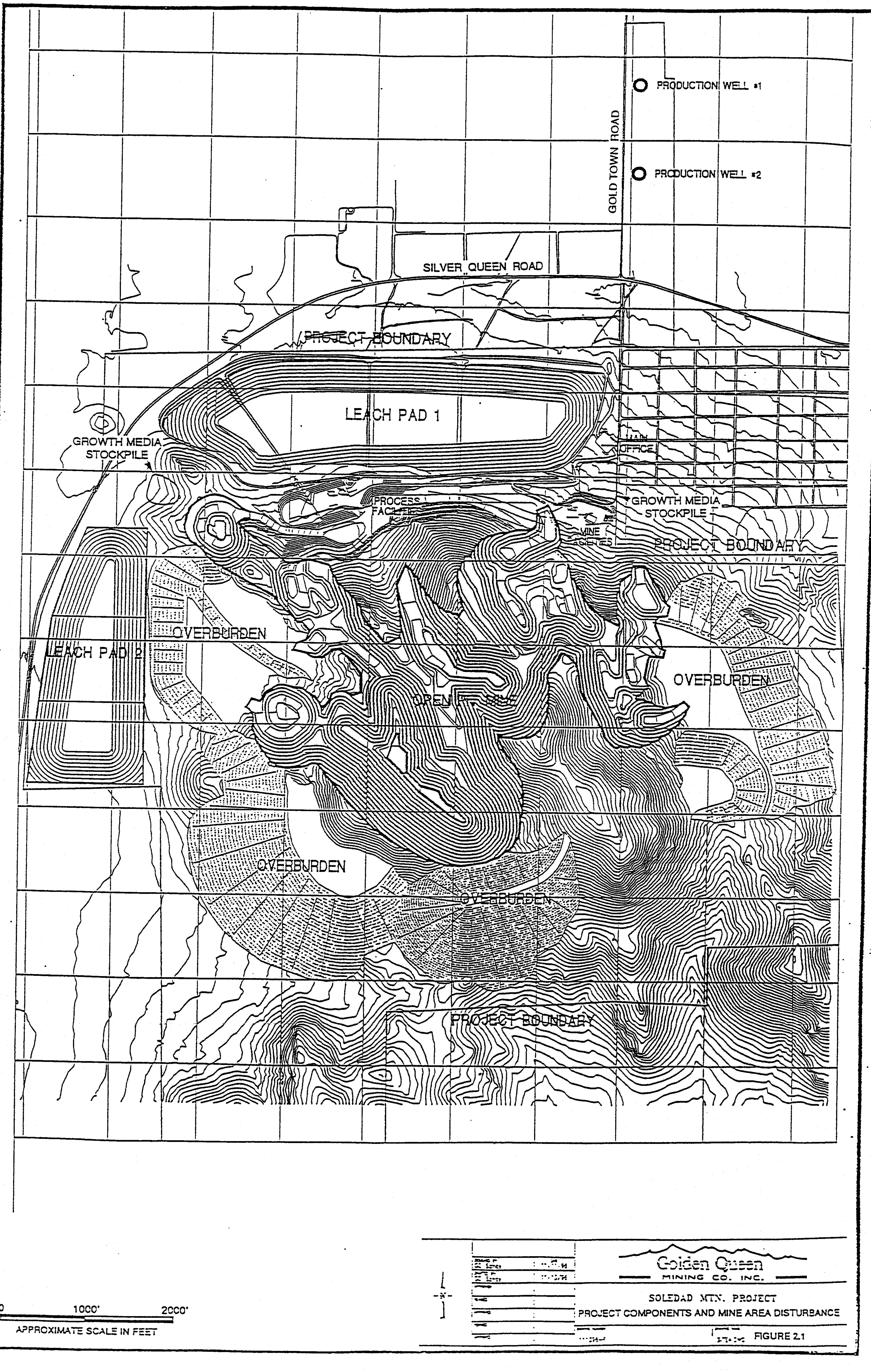
Approximately 215 acres of the project area have been previously disturbed as a result of the historic mining, milling, and exploration activities (see Figure 2.2). Therefore, of the 930 acres total disturbance, the new disturbance includes approximately 715 acres. Any previously disturbed land outside the project area and within the property boundary will be reclaimed where it is feasible to do so.

Due to the harsh desert conditions on the site, normal reclamation and revegetation methods utilized in more temperate climates will not succeed. Recent revegetation testing programs more appropriate for this desert climate were designed to test techniques for reclamation in the California Deserts. Results of these testing programs are described in Appendix A.

TABLE 2.1

Project Component Acreages

Project Component Area	Acres Disturbed	Acres Reclaimed	Growth Media (cubic yards)	Acres Active Revegetation	Acres Natural Revegetation
Heap leach					
North pad	166	166	79,000	166	-
West pad	77	77	37,000	77	-
Overburden pile					
Northwest	73	73	15,000	32	41
Southwest	92	92	8,000	17	75
South	86	86	1,000	2	84
East	93	93	12,000	26	67
Facilities and Roads	69	69	22,000	46	23
Open pit	265	44	21,000	44	-
Growth media stockpiles					
East	6	6	3,000	6	-
West	3	3	2,000	3	-
TOTALS	**930**	**709**	**200,000**	**419**	**290**



Golden Queen Mining Co. Inc.

SOLEDAD MTN. PROJECT

PROJECT COMPONENTS AND MINE AREA DISTURBANCE

FIGURE 2.1

APPENDIX A

RESULTS OF REVEGETATION TESTING PROGRAMS IN THE CALIFORNIA DESERTS

A.1 Introduction

Bamberg Associates has conducted revegetation testing programs at other mining sites in the California deserts starting in 1989 and continuing through 1995. These programs are current and monitoring is proceeding. Two of these mines are in the Sonoran Desert, and one is in the Mojave Desert near the current project. The results from these programs has confirmed that revegetation of disturbed mine sites in this area can be successful. The revegetation programs utilized the following techniques:

1) Microtopographic control of surface runoff into moisture catchment basins.
2) Transplanting and seeding the basins using locally collected plants, seeds, and stripped soils.
3) Establishing "garden spots" as source of plant material for continued revegetation.

The success of the above programs depended on years with abundant and appropriately spaced rainfall, such as the growing seasons of winter/spring in 1991/92, 1992/93, and spring of 1995. Full scale implementation of the reclamation program is presently beginning at several mining sites.

A.2 Revegetation Testing on Other Mine Sites

Bamberg Associates has conducted revegetation testing programs for the past five years (1989 through 1995) at several different sites in the Mojave and Sonoran Desert regions (Bamberg, et al, 1994; Bamberg and Hanne, 1995). These programs concentrated on the following aspects:

1) an intensive local seed collection program,
2) setting up seeding test plots in moisture catchment basins constructed on mine rock overburden piles and spent heap leach pads,

3) transplanting plant specimens on mine rock overburden piles dumps and reclaimed roads,

4) planning for grading and revegetation testing on the leach heap, overburden piles and roads and facilities at the mine sites.

Monitoring of the garden plots and transplants for revegetation success has been conducted at the beginning and end of each growing season (November/December and April/May). In general, the revegetation testing program and activities started in 1989/90 were extremely successful during 1992, 1993, and 1995. The main reason for this success was the record rainfalls during these years that were appropriately spaced and fell at optimum times for plant germination and growth. The testing program was designed to take advantage of rain and runoff by forming catchment basins that retain moisture, and then seeding and transplanting those places where the moisture collects. The catchment basins were successful and collected sufficient moisture resulting in seed germination in the seeded plots, luxuriant plant growth, and survival of transplants.

The seed collection program depended on adequate flowering and setting of seeds by the local vegetation, both abundant in 1992, and continued into 1993 and again in 1995 through the spring growing period. Sufficient moisture already existed in the soil to allow continued plant germination and growth during the early part of 1993 and 1995. This seed production also requires ample rainfall and moisture retention. Sufficient common plant seeds were collected during the spring and early summer seasons to carry out full scale seeding during final reclamation. The seeded plots, seed collection program, and transplanting programs have continued during the testing programs.

Test plots were set up on tops of mine rock overburden piles at two mines, and on the surface on 3 heap leach pads at one other mine. Portions of the program, such as seed collection and transplanting, have also been conducted at all three mines. The following sections highlight the setup and results of the revegetation testing programs:

Test plots

Test plots have been set up on overburden piles and spent heap leach pads: the test plots were set up in two areas within different mine overburden substrate conditions. One area was smoothed with a dozer and compacted by truck traffic and the other area had loose end-dumped mine overburden rock. Plots were also established on spent leach pads. Three types of seeding and transplant plots were established on overburden piles and heap leach pads (plus associated access roads):

1) double tear-drop shaped water catchment basins of 4,000 to 5,000 square feet on the compacted top portion of one overburden pile,
(2) half-moon crescent shaped catchment basins of 4,000 to 6,000 square feet on the entrance road and compacted western and southern portions of the second pile; and the sides of the heap leach pads,
3) irregular shaped basins in the loose end-dumped portions of two overburden piles, and the top surfaces of the heap leach pads.

All of the catchment basins collected and directed water to the 100 to 400-square-foot garden plots.

The mine rock in the test plots on one overburden pile was modified by adding combinations of amendments and treatments. Treatments included the addition of polyacrylamide (PAM) crystals as a soil moisture enhancement, ammonium nitrate as fertilizer, hay as organic mulch, and/or zeolite as a natural soil conditioner. Polyacrylamide crystals, a water-absorbing polymer, was tested by mixing it with the soil in some plots and in the transplant test plots at a rate to enhance the moisture retention capabilities of the soil. The monitoring of the amended test plots have not shown significant differences in plant germination and growth from the control plots.

Soils, as a seed source, were added from two areas: (1) desert pavement soil salvaged during construction of a heap leach pad, and (2) plots on one overburden pile were covered with soil collected from the nearby washes. The rest of the plots were seeded with locally collected native seed.

The results of the monitoring show that in these plots, germination and survival of plants has been successful. Test plots on the overburden piles were the first constructed in early winter 1989/1990, and have had the longest period of testing. These plots have received both wind-blown natural reseeding and seeding with nine species of plants collected in the area. There was excellent germination and growth observed in the all seeded plots during the April/May 1992 period. Regrowth, seed set, and additional germination from this seed occurred in 1993 and 1995 from the seeded plots. The most common plant in the plots and between berms is the adventive skeleton weed (*Eriogonum deflexum*) that is adapted to disturbed wash habitats. This plant species has reseeded from wind-blown seed. Good germination and growth was also displayed by four-wing saltbush (*Atriplex confertifolia*) seeded in December 1990. Other species that have become established are creosote bush (*Larrea divaricata*), fan-leaf (*Psathyrotes annua*) and desert-straw (*Stephanomeria pauciflora*). There were three palo verde seedlings observed in these plots, with some germination by three-awn (*Aristida*), spurge (*Euphorbia*) and a few small shrub species (*Encelia, Larrea*) scattered throughout the plots. Plants set seed in three of the past four years (1992 through 1995), and have contributed seeds to adjoining areas. A total of 37 species have been recorded in the test plots.

The trend to more complete ecosystem development was observed during the most recent monitoring in 1993 through 1995. In addition to vegetative surveys, animal habitat utilization has been recorded in the form of ant hills, rodent burrows and diggings, and plant grazing. Colonization and use of the reclaimed plots by wildlife species and insects has continued to expand. Small mammal burrows and ant nests were observed in many of the seeded plots. Vegetation has been grazed by jackrabbits, and by pack rats who are nesting in the boulders in the rough graded mine rock. Other animals noticed were birds and lizards in the spring, and evidence of a shrike using one of the transplanted ocotillo as a roost and to hang prey.

Specific area monitoring results of the test plots (from December 1993 to 1995) are summarized below. The relationship between time of establishment and other treatments and the current state of the revegetation success is included:

- The longest established (four growing seasons) of the revegetation test plots had initial slow plant and vegetation establishment because a good set of viable seeds was not available and a drought was ongoing at the time of planting. These test plots were established with a matrix of soil amendments, seeds or no seeds, and one watering or no watering. Past monitoring showed no significant effect from the soil amendments, although seed germination was enhanced by the simulated rainfall (one initial watering) in spring 1990 in some test plots. Seed germination emphasized the necessity of seeds or a good seed source for perennial plant establishment. Vegetative cover in all plots at one mine site averaged 55% (10% of this was perennial species), and cover was 22% (2% perennial) over the entire site in 1993. Perennial plants were in very good condition and some seed production was observed. Abundance of annual plants was very high.
- All of the plots for testing the best season (winter and spring) for seed planting had an average vegetative cover of 30% (0.5% of this was perennial species). The best results were from areas sown immediately after grading on fresh substrate during any time of year. Seeds remained covered in the soil and were dormant until favorable rains occurred.
- The portion of the overburden plots revegetated with transplants and wash soil as a seed source had an average vegetative cover of 40% (12% of this was perennial species) and was 15% (2% perennial) over the entire area in 1993. Perennial plants were in very good condition and some seed set was observed. Four perennial plants had seeds present, two of these also had flowers.
- On the heap leach pad reclaimed in 1992 the density of perennial shrubs and herbaceous perennials averaged 160 shrubs per acre during monitoring in spring 1995. The density of shrubs has been increasing on this site during the past two years, and the trend is for more perennials to become established as the vegetation matures. Numbers of species per plot (as a measure of diversity)

averaged 9.2 on the site, although the kinds of species differ due to the successional status of plant growth on the heap leach compared to offsite. A count of all perennial plants present in each basin that our transects crossed was recorded and included 109 perennials (12 species, mostly *Encelia farinosa* - inciensio). These species included surviving transplants of *Ferocactus cylindraceus* (barrel cactus) and *Opuntia acanthocarpa* (buckhorn cholla). The numbers and density of shrubs was more variable than total plant cover and could not be related to slope or aspect. The most conspicuous factor that may control shrub density is the lack of time for shrubs to become established on this successional vegetation type.

Transplant Program

All three revegetation programs had plant specimens transplanted from the areas to be disturbed into plots on the overburden piles and heap leach pads. The plants were dug out with a backhoe and transplanted, within a few hours, into prepared small pits. Two of the transplant programs used soil prepared with the soil amendments of PAM, zeolites, and ammonium nitrate. Immediately after planting, the pits were watered once and then again, approximately 3 hours later, to hydrate the PAM crystals. The soil amendments have not increased survival or growth of the transplants. These transplant programs were partially successful depending on the species transplanted and the age and condition of the specimen being transplanted. In one program, there was survival of 20 of the 41 plant specimens transplanted. The most successfully transplanted species in the Sonoran Desert were ocotillo with 8 out of 10 transplants surviving. Other successfully transplanted species were beavertail cactus, barrel cactus, and ironwood. The transplanting programs have been hindered by a lack of suitable plant materials due to the previous droughts, and the age and condition of the plants specimens. In the Mojave Desert, Joshua trees have been successfully transplanted.

Seed Collection and Source Program

The two sources of seed identified to date are: (1) surface soils stripped from areas to be disturbed that contain a reservoir of seeds, and (2) seed collected from native plants or from surface soils underneath shrubs in the local areas around the mine sites. The seed collection programs were fully implemented during the three years of abundant rains, the previous winters and spring of 1992 and 1993, and again in 1995. The stock of local seeds was collected for future sowing and collection will continue during the rest of the revegetation testing period. The surface soils stripped as a source of seed were from three types of areas. In the first area, soils were stripped from desert pavement surfaces on a flat bajada. This soil material was applied on the overburden rock piles in spring 1990 and contained very few seeds resulting in a low level of germination. The second area stripped was the area in a wash to be used as a borrow site for gravel. These soils were applied to overburden piles in late spring 1991. The third source was surface litter and soil underneath shrubs collected by hand. Abundant germination of many species was observed, and most annual and some perennial plants set good seeds during the growing season.

A.3 Reclamation Approach

The reclamation approach and concepts used during the revegetation test programs and ultimately for final reclamation are based on five components. These components are a direct result of the revegetation testing program as discussed above and consist of:

1. Establishing stable surface and drainage conditions that are compatible with the surrounding landscape. This will be accomplished during operations by material placement and grading, as well as after closure by final fine grading and contouring.

2. Where possible, create surface and substrate conditions conducive to seed germination, natural regeneration, and native plant establishment without

irrigation using moisture enhancement catchment basins. The soil surface will be altered through grading and the selective application of seed or appropriate soil material that will act as a seed source.

3. Collect and use seed from native plant species obtained from local and onsite sources, and transplant with locally adapted plant species into specially prepared local spots. These "garden" spots will act as loci for continued natural revegetation on the entire reclaimed site, including side slopes, berms, and pits.

4. Leave occasional slopes, particularly in the mined rock disposal areas and remnant pit slopes, as talus-like slopes to resemble the surrounding rocky hillsides. These surfaces may be recontoured for erosion and drainage control, as well as for slope stability and visual compatibility. Partial revegetation will occur through natural plant establishment from revegetated spots, as has been observed during the testing program.

5. Consider public safety through the stabilization of slopes and mined surfaces, removal and/or fencing of structures or landforms that could constitute a public hazard .

Surface stabilization must be obtained through contouring and drainage control as opposed to revegetation due to the desert climatic conditions. Vegetation cannot be established at a density that would generate slope stability through root mass and penetration. Revegetation is desirable from the standpoints of vegetation productivity, aesthetics, and wildlife habitat. Stability on natural, undisturbed slopes is provided by landform rather than vegetation, therefore, the basis for site reclamation initially lies with the physical manipulation of onsite topography for stabilization, and then with revegetation for aesthetics and wildlife habitat.

Past reclamation procedures were designed to use precipitation with surface runoff water management. The only watering of transplants was accomplished with onsite watering trucks at the initial time of transplanting. This minimal-irrigating approach to vegetation establishment is warranted in this desert climate due to the poor quality of water, to avoid irrigation-dependent plants, and the lack of significant success with other irrigation studies in these isolated desert habitats. Chances increase for long term successful revegetation if plants germinate naturally and survive without artificial watering.

A.4 Reclamation Standards

Based on the revegetation testing and subsequent monitoring, the reclamation standards recommended use a combination of reclamation activities and revegetation results. The standards for activities are based on the successful techniques used during recent revegetation testing programs at other desert mining sites. Since successful reclamation has been demonstrated to depend on a combination of surface preparation that takes advantage of natural precipitation and an adequate seed source, a dual approach to reclamation standards is considered necessary. The germination and subsequent growth of plants to produce vegetative cover (the plant cover standard) is then dependent on ensuing rainfall.

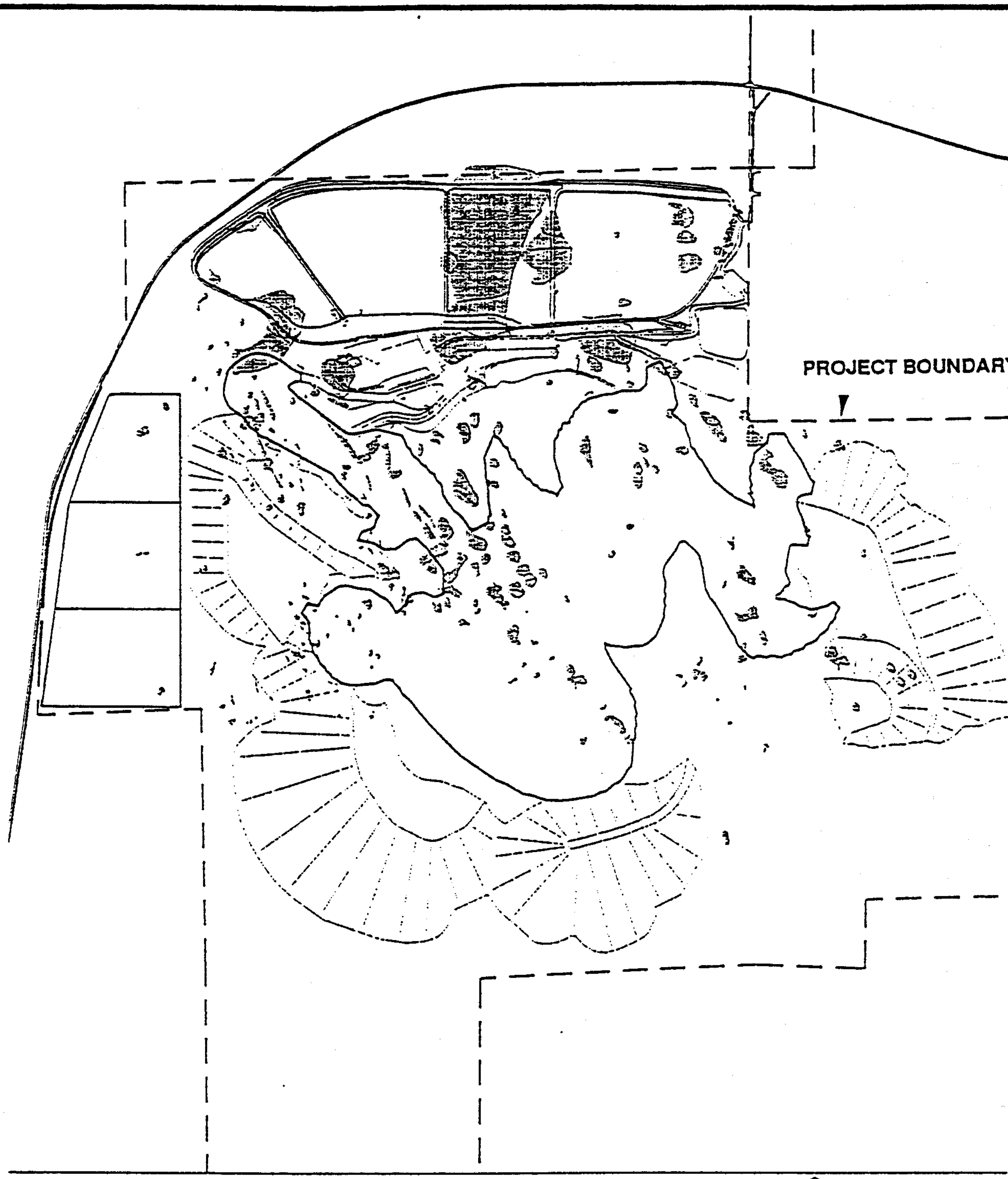
The reclamation activities include: (1) rough grading for drainage control, erosion control, and surface stability, and (2) fine contouring for surface configuration and water catchment basins. The revegetation standards will be based on a percentage of the vegetation cover present on corresponding adjacent vegetation types. The existing vegetation cover will be determined using a vegetation/topographic correlation method. The reclamation activities that will be performed, including rough and fine grading, need to be field determined at the time of closure. The bond period for this portion of the reclamation activities should be set to conclude a period for satisfactory completion of these activities.

The revegetation standard can be determined using a sampling protocol that has been developed for sampling vegetation cover and patterns in relationship to topographic, soils, and erosional factors. The topography and soils on the reclaimed site will be complex and disturbed, and the vegetation established will be in a successional status, not uniform, and composed partly of hardy and pioneer species that may differ from natural vegetation. The specific type of sampling for determining the relationship of vegetation patterns to soils and topography should be conducted on relatively undisturbed areas in the vicinity of the mine site. The purpose of monitoring and sampling is to determine the vegetative cover, densities, and patterns of vegetation in the specific location of a mine in California as a guide to conditions to be expected on the reclaimed site.

The method proposed and used during the revegetation testing program at current mine sites uses linear coupled transects. These are linear plots (typically 2 x 10 meters in size, or longer in the desert) laid end to end and oriented parallel to or across environmental gradients. A 30 meter steel tape will be stretched between markers. Lines of transects generally are run for 500 meters or more depending on the ecological scale of vegetation in relationship to topographic parameters. The general areas to be surveyed are the slopes, flats, and near the mine that will not be disturbed by mining. Vegetative, topographic, erosional, and soil parameters are to be recorded in each plot. The transects are analyzed for the cover, dominant species, type of vegetation, and amounts of bare areas as they relate to topography, soils, and erosional features. The linear transects can be run from randomly selected located points near the mine. Similar linear transects should be measured on the reclaimed site using an analogous systematic random location method. An attempt will be made to have approximately the same number of samples on the reclaimed sites and on the adjacent areas.

The parameters in the transects to be estimated or measured for vegetation are percent cover by species, and numbers of shrubs and perennials by species. Topographic features recorded will be slope and aspect; soils and surface features will be types of substrate and percentage rock; and erosion features will be depths and width of drainages, and amounts of aggradation and degradation (erosional status) of surfaces. The number of samples will depend on the heterogeneity of the linear plots being surveyed. Sample adequacy for the number of factors being measured are generally not of concern, but a large number of samples is required for multiple regression analysis. The results of the transects will be analyzed for: (1) the vegetative types, percentage cover, and sizes of area with low vegetative cover; (2) the percentage and types of topographic slopes; (3) the percentage and types of soil; and (4) types and amounts of erosional features. The parameters will be developed using statistical means and standard deviations. The correlation coefficients between these four sets of parameters can be determined for application toward developing the range to be used in the standards, if needed.

The results of the analysis will then be applied as a standard on the reclaimed areas at the proposed mine site. It is proposed that the standard for the reclaimed surfaces be set at a percentage of cover and density of the similar adjacent vegetation measured in comparable areas. It is recommended that the monitoring and bond period for revegetation be set at a maximum of 5 years, or earlier if adequate rains occur and plant germination and growth equal the criteria standard.



0 1500' 3000'

APPROXIMATE SCALE IN FEET

Golden Queen
MINING CO. INC.

PRE-EXISTING
DISTURBANCE

GOLDEN QUEEN MINING COMPANY INC.
Soledad Mountain Project

PREVIOUS DISTURBANCE

DATE 11/96		FIGURE 2.2

LEGEND

AREAS OF PREVIOUS DISTURBANCE

3.0 SITE CHARACTERISTICS

The Soledad Project is located on Soledad Mountain approximately five miles southwest of Mojave, California. This is 70 miles northeast of Los Angeles on the western edge of the Mojave Desert. Soledad Mountain is an isolated, roughly circular volcanic peak approximately three miles in diameter. The mountain rises out of the alluvial flats in northwestern Antelope Valley southeast of the Tehachapi Mountains. Elevations on the mountain range from 2800 feet at the base to 4190 feet at the highest peak. The slopes are steep with rock outcrops. Residual weathered rock and soil lie below the outcrops. Alluvial slopes and flats surround the mountain on all sides except for the northeast where there are low hills and ridges with a former operating gold mine.

The climate is typical for the Mojave Desert with hot, dry summers and cool winters. Temperatures range from 70 to 105 degrees Fahrenheit in the summer and 27 to 60 degrees in the winter. The average precipitation is approximately five inches per year with the majority of the rainfall occurring in the winter months from frontal storms. With increasing elevations on Soledad Mountain, the temperatures are cooler and rainfall and snow increases.

The desert climate and dry substrate conditions influence the soil and biological resources. Soils are generally skeletal rocky or pebbly loams on the slopes, and sandy loams on the alluvial fans and flats. Soils consist of weathered residual substrates on the mountain grading into undifferentiated alluvium around the base of the mountain. The mountain is characterized by rock outcrops and rocky soils with predominantly desert shrub-grass species that have been altered by frequent burning, grazing by sheep, recreation, and mine related disturbance. The vegetation is a creosote/burrobush type on the flats and alluvial slopes below and surrounding the mountain. Vegetation on the mountain slopes consists of an altered shrub/grass. Wildlife is fairly diverse, however, animal populations have a low density, a high diversity, and activity is seasonal.

Previous disturbance on the mountain is from historic mining activities, previous and more recent exploration, burning, and increased human activity. Groups of people use the area for recreational vehicle activities and target practice for firearms. The two activities which have had the most influence on biological and soil resources are the mining/exploration and the repeated fires which have highly altered the vegetation.

As part of a separate Biological and Soil Resources Evaluation by Bamberg Associates, 1996, stand surveys were completed in 1990 and 1995. The results for the two surveys were very different due to variations in moisture and growing conditions. In 1990, the mixed shrub community on the mountain slopes consisted mainly of annual grasses with a cover value of 10% due to fire. In areas protected from fire, two shrubs dominated with a cover value of 49%. In 1995, in the same area, cover values were estimated at 80% with extremely variable vegetation. Tables showing the survey results are contained in the Biological and Soil Resources Evaluation.

4.0 RECLAMATION APPROACH

The basis for the revegetation approach and techniques presented in this plan is from observations of natural revegetation occurring near the Soledad site, as well as from the ongoing revegetation testing programs at other mines as presented in Appendix A.

4.1 Reclamation techniques

The results from the testing programs have confirmed that revegetation of disturbed mine sites in this area can be successful. The revegetation programs utilized the following techniques:

1) Microtopographic control of surface runoff into moisture catchment basins.
2) Transplanting and seeding the basins using locally collected plants, seeds, and stripped soils.
3) Establishing "garden spots" as source of plant material for continued revegetation.

The success of the testing programs depended on years with abundant and appropriately spaced rainfall. Full scale implementation of the reclamation program is presently beginning at several mining sites. These testing results and start up of implementation are the basis for the following components utilized in this Soledad plan:

1) The Soledad site will be revegetated by establishing surface drainage control and small catchment basins capable of sustaining vegetation without artificial irrigation.
2) Seeds will be collected from nearby areas for revegetation.
3) A reclamation standard for vegetation parameters on the reclaimed surfaces will be established by appropriate sampling of adjacent vegetation types and habitats. The goal is a productive self-sustaining ecosystem given the conditions on the reclaimed site.

4) Wildlife habitat and open space will, once again, be the primary land use objective.

Previously disturbed areas outside the project component boundaries will not be reclaimed. Approximately 419 acres (45%) of the areas to be disturbed during the current proposed mining can be reclaimed (refer to Table 2.1). Portions of the project site will not benefit from a revegetation effort due to the steep slopes, poor topographic conditions, and harsh, desert climate with poor soil substrate conditions.

The reclamation approach and concepts are based on five components. These components are a direct result of the revegetation testing program (Appendix A) and consist of:

1. Establishing stable surface and drainage conditions that are compatible with the surrounding landscape. This will be accomplished during operations by material placement and grading, as well as after closure by final fine grading and contouring (see Section 6.1).

2. Where possible, creating surface and substrate conditions conducive to seed germination, natural regeneration, and native plant establishment without irrigation using moisture enhancement catchment basins. The soil surface will be altered through grading and the selective application of seed or appropriate soil material that will act as a seed source (see Section 6.2 and 6.3).

3. Collecting and using seed from native plant species obtained from local and onsite sources, and transplanting with locally adapted plant species into specially prepared spots. These "garden" spots will act as loci for continued natural revegetation on the entire reclaimed site, including side slopes, berms, and pits (see Section 6.4 and 6.5).

4. Leaving occasional slopes, particularly in the overburden pile areas and remnant pit slopes, as talus-like slopes to resemble the surrounding rocky hillsides. The horizontal surfaces of the overburden piles ~~may~~ will be recontoured for erosion and drainage control, as well as for revegetation and visual compatibility. Partial revegetation will occur through natural plant establishment from revegetated spots, as has been observed during the testing program (see Sections 7.1 and 7.2).

5. Considering public safety through the stabilization of spent ore heap slopes and removal and/or fencing of structures or landforms that could constitute a public hazard (see Section 7.3 and 7.4).

Surface stabilization must be obtained through contouring and drainage control as opposed to revegetation due to the desert climatic conditions. Vegetation cannot be established at a density that would generate slope stability through root mass and penetration. Revegetation is desirable from the standpoints of vegetation productivity, aesthetics, and wildlife habitat. Stability on natural, undisturbed slopes is provided by landform rather than vegetation, therefore, the basis for site reclamation initially lies with the physical manipulation of onsite topography for stabilization, and then with revegetation for aesthetics and wildlife habitat.

Post reclamation procedures are designed to use precipitation with surface runoff water management. This minimal-irrigating approach to vegetation establishment is warranted in this desert climate due to the poor quality of water, necessity of avoiding irrigation-dependent plants, and the lack of significant success with other irrigation studies in these isolated desert habitats. Chances increase for long term successful revegetation if plants germinate naturally and survive without artificial watering.

The use of containerized seedlings is not recommended for the mine revegetation. The seedlings may not have the right characteristics (genotype) for survival on the mine substrates. Watering is generally required for a period of time, up to two years. When watering is discontinued, plant survival is compromised. Water quality is a problem due to high mineral contents that can form crusts after a short period of irrigation. Propagation of containerized seedling is expensive and requires the extra use of resources. The better alternative is to set up the proper substrate and moisture conditions for seed germination and growth by enhancing natural processes of vegetation succession. Plants that germinate and grow from seed without horticultural or artificial means have a greater chance of long term success. However, the use of transplants of site indigenous species will be included in test plots to determine the chance of their successful use.

4.2 Reclamation Results and Standards

Reclamation activity consists of two stages. The first stage involves the reclamation activities of physical preparation of the surfaces and seeding. The second stage is after a period of vegetation establishment. Final bond release will be based on revegetation standards.

For the first stage, the reclamation activities include: (1) Removal of building structures and equipment, (2) testing of soils, (3) heap leach pile neutralization (the bond for this to be covered by a separate agreement with the Regional Water Quality Control Board), (4) rough grading for drainage control, erosion control, and surface stability, (5) fine contouring for surface configuration and water catchment basins, (6) seeding and vegetation establishment, (7) fencing and (8) administrative activity. The reclamation activities that will be performed, including rough and fine grading, will need to be field determined at the time of closure. A final engineering design will be prepared based on the final surface configuration when the mine is closed. GQMC will commit to providing this final plan and costing. After satisfactory completion of these activities, the bond for the first stage will be released.

The second stage of reclamation involves evaluation of revegetation success determined during a monitoring period. The vegetative cover (the plant cover standard) is dependent on subsequent climatic conditions, particularly the ensuing rainfall amounts and patterns.

The revegetation success will be dependent on the results of seed germination, and plant growth and establishment. These standards proposed are a percentage of the vegetation parameters based on corresponding adjacent vegetation types, or on vegetation that has been successful on disturbed land in revegetation testing.

The vegetation standards will be determined using a sampling protocol that has been developed for sampling vegetation and topographic variables on reclaimed lands. The topography and soils on the reclaimed site will be complex and disturbed, and the vegetation established will be in a successional status. The vegetation will not be uniform, and composed partly of seeded species, but also hardy and pioneer species that may differ from natural vegetation. Soledad Mountain has habitats and vegetation that have been mined, burned, and grazed in the past, and is not a pristine area. The vegetation that has established on historic mining was observed to differ from the relatively natural vegetation in species composition and cover.

The vegetation cover in existence at nearby areas at the time of revegetation will be determined using a linear transect monitoring method. This specific type of sampling for determining the relationship of vegetation patterns to soils and topography will be conducted on relatively undisturbed areas in the vicinity of the mine site. The purpose of this sampling is to determine the vegetative cover, densities, and patterns of vegetation in this specific region of California during the climatic conditions at the time of reclamation as a guide to conditions to be expected on the reclaimed site.

The method proposed uses linear coupled transects (see also Appendix A). These are linear plots (typically 2 x 10 meters in size, or longer in the desert) laid end to end and oriented parallel to or across environmental gradients. A 30 meter steel tape will be stretched between markers, and variables recorded for each 10 meter plot. Vegetative, topographic, erosional, and soil variables will be recorded in each plot. The transects will be analyzed for the cover, dominant species, type of vegetation, and amounts of bare areas as they relate to topography, soils, and erosional features. Previous vegetation sampling on Soledad Mountain has measured perennial vegetation cover from less than

1% to about 40% in years of low precipitation, and up to 80% cover in years of abundant moisture. This cover is highly dependent on seasonal rainfall, and the 80% cover is a maximum following three years of abundant rainfall.

At the time of sampling for bond release, concurrent and comparable monitoring will be conducted in the same year on undisturbed sites on the mountain and in the reclaimed areas. The linear transects will be run from located points on the mountain. The general areas to be surveyed will be the slopes or flats on portions of Soledad Mountain that will not be disturbed by mining. Similar linear transects will be measured on the reclaimed site using an analogous systematic random location method. Approximately the same number of plots will be sampled on the reclaimed sites and on the adjacent areas.

The biotic variables in the transects to be estimated or measured for vegetation are percent cover by species, and numbers of shrubs and perennials by species. The abiotic and topographic features recorded will be slope and aspect; surface features will be types of substrate and percentage rock; and erosion features of depths and width of drainages. The number of samples will depend on the heterogeneity of the linear plots being surveyed. Sample adequacy for the number of factors being measured are generally computed based on statistical validity. The results of the transects will be analyzed for: (1) the vegetative parameters of percentage cover, density and diversity; (2) the percentage and types of topographic slopes; (3) the percentage and types of soil; and (4) types and amounts of erosional features. The parameters will be developed using statistical means and standard deviations.

The results of the analysis will then be applied as a standard on the reclaimed areas at the proposed mine site. It is proposed that the standard for the reclaimed surfaces be set at 35 percent of the vegetative cover (amount of surface covered by perennial plant canopies), 20 percent of the density (number of perennial plants per unit area) and 30 percent of diversity (number of different species of perennials in a sample area). These standards will be compared to similar adjacent vegetation measured in comparable Soledad Mountain areas either in undisturbed vegetation, or as compared to a reclaim vegetation standard. These standards may change as a result of current and future monitoring. The results of the field sampling procedures will be documented prior to completing the final reclamation at Soledad, and can be repeated during the monitoring stage. It is recommended that the monitoring and bond period for revegetation be set at 5 years, or less if adequate rains occur and plant germination and growth equal the standards. Golden Queen acknowledges that monitoring will need to be performed until performance standards are met.

5.0 RECLAMATION SCHEDULING

The schedule for revegetation plots, interim and final reclamation will depend on the construction, operation, and closure of the mining facilities. This schedule will be developed after detailed engineering and operational plans are finalized, but will be periodically reviewed as mining progresses. Interim reclamation plots or areas can be established after several years into a project when disturbed surfaces are available that will not be further disturbed or otherwise used. Monitoring will be conducted on the reclamation plots and final reclamation areas during the appropriate seasons (generally twice a year during the first two years, and annually thereafter). Maintenance activities for test plots during mining and reclaimed areas after closure will also depend on current activities and the effects of weather patterns.

6.0 GENERAL RECLAMATION PROCEDURES

This section will first describe the general and specific procedures recommended for reclamation at the Soledad project, then will describe how these procedures will be implemented in Section 7.0. The purpose of the reclamation planning and test plots is to establish the most practical methods for natural revegetation and seeding with minimal use of equipment and materials given the conditions on the project site.

The goal of this reclamation program is to return the disturbed area of the mine site to a stable, self-sufficient ecosystem. For this reason, irrigation is not recommended because of the dry desert climate. Plants grown under irrigation practices will not survive when the irrigation is discontinued. This non-irrigating vegetation establishment is also warranted in this desert climate because of the poor quality of water and lack of long-term success at other, climatically similar, mine sites. In addition, locally collected and native plant species seeds will be sown. If native and adapted plants germinate in a specific site and survive, there is a significantly better chance for long term successful revegetation at that site. The procedures that will be set up at the areas to be reclaimed are: (1) set up and grade the area surface configuration for drainages and water collection, (2) collect local seed in the vicinity of the proposed mine, and (3) seed the plots.

6.1 Grading the Areas

The initial rough grading will blend edges of overburden piles and reduce the grade of the leach heap pads before final grading for catchment basins. Potential drainage and erosion processes will be important considerations in the design for shape and size of the basins.

Previous experience has shown that basins of about 4000 to 5000 square feet in this desert climate provide sufficient moisture collection to support garden spots of about 400 square feet. Garden spots are the lowest area in the basin were water saturates the soil, and this is the area where seeds will be sown and initial plant growth will be encouraged. The shape of the catchment basin can vary from crescents on slopes to coupled double-ended ovals on flatter tops of mined rock piles. The mine overburden piles have surface and subsoil conditions similar to surfaces that will be encountered on the other disturbed areas such as roads, facilities, and leach heaps. These will be compacted surfaces of mixed rock substrates with varying amount of actual soil or highly weathered materials other than coarse alluvium.

6.2 Surface Preparation

Most of the surfaces of the fine graded water catchment basins will be left in a rough condition. Compacted surfaces may be loosened by ripping. This will enhance seed catchment and water retention and also prevent erosion channels from forming during the subsequent storm events and runoff.

A seeding or transplant plot will be established in the lowest point of the catchment basin or in depressions where water will collect in chiseled compacted ground or rough graded rock overburden piles. These plots can be of any shape, but should be about 100 to 400 square feet in size. These plots can be constructed either by dozing or by digging a depression with a front end loader and piling the excavated material as a low ridge to the west (up wind) side of the depression. The low ridge acts as a wind barrier to the prevailing strong north and west winds. The seed mixture or transplant material is placed in the depression immediately after basin and plot construction when the soil surface is loose and seeds will lodge.

Other surface preparation procedures that will potentially be used are: (1) deep chiseling of large compacted surfaces such as haul roads or heavily traveled routes, bone yards, and former shop and facilities areas, and (2) dozing of mounds, berms of haul roads, and any dumped material other than mine overburden rock. Grading and contouring along the minor washes will slow and redirect runoff to enhance plant survival. This surface water management will consist of construction of berms above catchment basins.

6.3 Soil Salvage, Placement and Amendments

The soils and surface material on Soledad Mountain were evaluated as a plant growth medium and source of seed. Soledad Mountain was formed as a result of volcanic activity and, therefore, the parent material and soils are of volcanic origin. The principal rock substrates are of three general types:

1) two kinds of rhyolites (flow and intruded)
2) pyroclastic debris, tuffs, and breccias
3) quartz alunites and latites

The soils formed from these substrates vary from weathered rock outcrop to deeper droughty skeletal soil with a clay loam to sandy loam texture. Soil development has been slow and profile development incomplete or non-existent. The soil surfaces are fairly stable, however, in some places they are old and weathered. Although the slopes on the Soledad Mountain are steep, there is little evidence of slope or soil instability in the form of slides, soil creep or solifluction lobes. The reasons for this are unknown, however is most likely related to the weathering of these soils producing a clay content that binds soil and rock particles into a stable mass. In this dry climate, the soil does not become saturated enough to move on the bedrock which is rough and without bedding planes.

Based on experience at other revegetation testing areas, it is likely that large portions of the reclaimed surface will consist of uncovered mined rock material which weathers into soil substrates containing fines. During final reclamation, pockets in which plants can become established will be interspersed at varying intervals within the contoured basins. In addition, scattered vegetation will become established within a short time depending on local climatic conditions (rainfall events), softening the visual disparity with surrounding areas. Although mined rock overburden material may not, in the foreseeable future support the same type of vegetation which currently exists on upland slopes, it is anticipated that these areas will probably support a greater vegetative cover than do the rock outcrop and adjacent alluvial fans that currently occupy large portions of the site.

Recent testing of revegetation on salvaged desert soils indicate that the salvaged and stockpiled soils are not a better growth medium than the prepared surfaces of overburden piles and heap leach materials. The weathered desert soils are generally poor and lack sufficient nutrients to support revegetation when used as a plant growth medium. The overburden and leach materials are a good source of nutrients, and have appropriate textures for desert plants.

The availability of suitable soil material is limited due to past mining on Soledad Mountain and the large amounts of rock rubble and outcrop. The lack of soil material will not negatively impact the primary goal of reclamation, which is surface and subsurface stabilization, subsequent revegetation, and the re-establishment of a stable area capable of productive land uses (vegetation and wildlife habitat) after the completion of operations. Generally topsoil is nonexistent on the lower slopes and alluvial fans in the project area due to poor soil development. However soil materials up to 0.5 feet in depth can be selected and salvaged from the leach pad area and lower portions of the overburden piles areas, where suitable, as sources of seed. This salvaged material is referred to as growth media. Growth media with suitable texture will be used in localized areas as a source of seed. The growth media will be extracted from areas within the project site prior to disturbance by mining or operations.

The availability and amounts of growth media of suitable substrate material are estimated based on the areas to be disturbed and percentage of previously disturbed soils. It is estimated that 200,000 cubic yards of suitable growth media can be salvaged from the leach pads and flatter portions of the overburden pile areas. This material will be used during final reclamation by spreading in selected areas to a depth of 2 inches. This plant growth media will be spread as a thin layer using a front end loader, after the soil is transported from the stockpiles to the area to be spread using haul trucks. As summarized in Table 2.1, more than enough growth media is available in the estimate of 200,000 cubic yards.

In general, soil amendments have not proved to be necessary or effective in this desert climate in promoting or enhancing plant growth. The revegetation test program included testing soil amendments of fertilizer, a soil conditioner, water retention crystals, and an organic mulch. The results of adding soil amendments have either been neutral or inconclusive to date in the testing program due to the extreme and variable growing conditions during the past several seasons. Based on the results to date, using soil amendments are not recommended. The use of soil amendments is costly and time consuming, and does not enhance vegetation growth and productivity. It is estimated that most plots, up to 90%, will have good germination and plant growth using moisture catchment and plot establishment techniques alone, provided a good seed source is used and rains occur. These techniques should be adequate for most revegetation purposes without additional soil amendments.

The lowest area within each catchment will be formed into garden spots of about 400 square feet by roughing the surface if compacted by equipment passes. Salvaged soils will be placed first in these spots, and then distributed over other areas, as available. These garden spots will be more heavily seeded to provide an area for quick seed germination and plant growth. These spots can then act as centers for seed production and dispersal in subsequent years. They can also be used as locations for transplanted plant specimens to ensure good survival and growth after replanting.

6.4 Collecting Seed Sources

In general, locally adapted seeds are available from two sources: these are: (1) seeds in surface soils salvaged during construction of heap leach and portions of the overburden piles, and (2) seeds hand collected from plants and soils on and in the vicinity of the mine.

Seeds in surface soils have been observed in surface plant debris and organic matter under shrubs and in wind-rowed furrows in undisturbed vegetation around the base of the mountain. Suitable locations that have abundant, viable appearing, seeds of several plant species that grow in relatively undisturbed vegetation will be determined by inspection.

This source of locally collected seed in surface soils typically will contain viable seeds from up to 25 species of native perennial shrubs, perennial forbs, and annuals. This information is based on previous tests in similar desert conditions. In addition, long-lived seeds of a variety of annual plants were also noted to germinate after sowing under favorable rain and temperature conditions during subsequent growing seasons. There are very few weeds or undesirable seeds in the collections, provided the seed is collected from soils in undisturbed native vegetation.

Seeds can be collected from plants into bags and from underneath shrubs using hand implements such as shovels, trowels, or simply hand scooping the surface materials (no more than the top one-half inch) containing the seeds and placing in large paper bags. The collected material may at times contain a large percentage of plant litter and organic matter mixed with the seed. However, a large volume of this seed containing material can be quickly collected offsetting the low percentage of viable seed. A sufficient volume of seed materials can be collected in a short period of time to sow the areas needing revegetation. In 1995, approximately 55 bushels of seeds containing enough seed to sow an estimated 780 acres were collected at a nearby mine in the Mojave Desert.

This method of seed collection by hand does not unduly disturb the native vegetation community since the seeds are not collected all in one place, nor from a single surface. This method of seed collection can be used to build up a sufficient reservoir of seeds during those favorable years with good set and production. Most of the seed will remain viable during the short period of time that the seed is stored, generally from a few days up to several years. Seeds of some desert plants are known to remain viable for long periods of time (decades) under favorable conditions. It is not necessary that all seeds of all plants species survive in order to establish good germination, vegetative growth, and productivity during reclamation.

The disturbed surfaces on the mine of overburden piles, spent ore heaps, and roads and facilities do not resemble natural habitats now present on Soledad Mountain. These surfaces do not simulate alluvial fans, mountain slopes or rock outcrops with weathered mature surfaces, but are an atypical substrate. The approach to seeding these disturbed surfaces is to collect available seed from a variety of native species, seed with this mixture, and allow the successful genotype of the native species to germinate and grow. There is no known treatment or seed mix to anticipate what species will successfully germinate and colonize the reclaimed surfaces. Some local species are successful in germinating and growing on the disturbed surfaces, others will not grow until the vegetation and soil has matured, or other unknown specific site factors are present. Therefore, specific seed mixtures for certain slopes and exposures have not been established. It is possible that test plots will aid in determining a more specific seed mixture for different areas on the project site. General seed mixtures for slopes (mixed upland shrub) and flats (shrub scrub) as defined in Figure 4-1 of the Biological and Soil Resources Evaluation Report are shown in Table 6.1.

6.5 Sowing Seed

The seeds will be immediately sown or growth media applied (the same day or within a few days) onto the roughened soil surfaces prepared for revegetation. The garden spots will be sown first at a heavier rate than the rest of the prepared catchment basins. Depending on the amount (volume) of seed collected, other portions of the basins will be lightly sown with seed or spread with growth media.

Seed will be hand broadcast or will be applied using hand-held spreaders. The seed application rate is estimated at approximately seven to eight pounds per acre. The rate of sowing will be adjusted, by volume, depending on the visible seeds present. Generally, about one-half cup of seed containing material per catchment basin was sufficient in past trials using this method. As mentioned earlier, seed will be sown immediately following the fine grading of the basins while the soil surface is loose. Plant growth media will be spread to an average depth of two inches on most areas. Subsequent rains and weathering processes cover the seed and prevent washing and blowing.

Experience with seeding trials at other windy mine sites has demonstrated that seeds sown directly onto freshly graded and roughed surfaces are quickly covered and are not blown any distance. The seeds are sown by hand in shallow basins behind berms (or ridges and furrows) that also protect seeds.

TABLE 6.1

Preliminary Plant Seed Mixture for Revegetation

Shrubs		Rate of Application* Slopes	Flats
Acamptopappus sphaerocephalus	goldenhead	5	5
Ambrosia dumosa	burrobush	5	20
Atriplex confertifolia	shad scale	1	5
Atriplex polycarpa	cattle spinach	3	3
Chrysothamnus nauseous	rubber rabbitbrush	10	5
Encelia virginensis	acton encelia	5	10
Ericameria cooperi	goldenbush	1	2
Eriogonum fasciculatum	California buckwheat	5	5
Eriogonum plumatella	flat-top buckwheat	2	2
Grayia spinosa	spiny hop-sage	10	1
Hymenoclea salsola	cheesebush	2	1
Krascheninnikovia lanata	winter fat	10	1
Larrea tridentata	creosote bush	20	25
Xylorhiza tortifolia	mojave-aster	5	5
Grasses			
Poa secunda	bluegrass	5	1
Pleuraphis rigida	big galleta grass	1	2
Trisetum canescens	trisetum	2	1
Herbaceous Perennials and Annuals		7	4
Camissonia brevipes	evening primrose	+	+
Chaenactis fremontii	Fremont's pincushion	+	+
Dalea mollis	soft indigo	+	+
Eriogonum trichopes	little trumpet	+	+
Lupinus brevicaulis	sand lupine	+	+
Malacothrix californica	desert dandelion	+	+
Phacelia glandulifera	tackstem phacelia	+	+
Platystemon californicus	cream cups	+	+
Salvia carduacea	thistle sage	+	+

* Rate is an estimated percentage of total seed by volume and reflects relative abundance of plant species.

\+ Rate for herbaceous species is variable depending on seed availability.

7.0 RECLAMATION IMPLEMENTATION

The open pit and associated mining activities at the Golden Queen Project will result in four main areas of disturbance: (1) overburden pile areas, (2) mining open pit(s), (3) spent ore heap, and (4) facilities and access and haul roads. The open pit will receive a minimum of reclamation, as will the sides of the overburden piles. The following sections outline specific reclamation considerations for each of these disturbance areas at the project site.

For the purposes of this document, closure is defined as "the activities necessary to eliminate any groundwater hazards (heap rinsing and detoxification, plant decommissioning, pond removal, etc.)" and reclamation is defined as "the physical activities (heap recontouring, plant/facility removal, access road recontouring, site revegetation, etc.) necessary to rehabilitate the site (see Appendix A). A closure and post-closure plan will be developed that describes the physical aspects of closure implementation. This document details reclamation and revegetation plans. As previously mentioned, due to the harsh nature of the desert environment and unsuitable substrates, only areas suitable for revegetation will be attempted (See map of areas in Figure 1). Many areas (steep slopes, south facing slopes, rock outcrops etc.) are not conducive to revegetation. Therefore, not all of the areas listed as "disturbed" will be revegetated.

7.1 Overburden Piles

The overburden piles will have surfaces and subsoil conditions similar to mine pits, roads, facilities, and leach heaps. These will be surfaces of mixed rock substrates with little developed soils or highly weathered materials other than coarse alluvium. Revegetation testing on similar sites conducted to date showed that the top horizontal surface of the mined overburden rock piles has two types of surface conditions. The first is loose end dumped material with undulating surfaces that result from dumping mine overburden rock without dozing or grading. The second is hard packed surfaces left from haul truck traffic and dozing. Rough surfaces will be smoothed and configured into shallow basins constructed with irregular outlines of about 4000 to 5000 square feet. After ripping the compacted hard surfaces in the flat portions, similar basins will be constructed with a dozer and grader. The configured surfaces will be sown with seed or spread with growth media. Revegetation of overburden pile side slopes after recontouring is not proposed because such slopes are not conducive to active revegetation in the harsh desert environment. Natural revegetation will occur within a period of several years.

7.2 Mining Open-Pit

At the end of mining operations, in-pit diversions constructed during mining to divert surface runoff from the upstream catchment area will be breached. The natural drainage upstream of the pits will be reestablished so that runoff will enter the pits at the low point of the pit rims. Standing water will collect in the pit bottoms and some active revegetation will be conducted for wildlife habitat. Blasting of pit slopes and high walls is not needed for reclamation.

Flat benches remaining along pit walls after mining are rough surfaces providing for the anchoring of seed and soil materials available through natural processes. However, management and mine health and safety supervision recommend that these surfaces be left alone on pit wall faces due to safety considerations. These pit walls will be avoided during final reclamation. Surface material will be left in a loose, rough condition to aid in moisture retention, decrease wind erosion losses, and encourage establishment of seedlings in small surface crevices. In addition, it is expected that over time some natural encroachment of native species (i.e. creosote bush, burrobush, inciensio, cactus, and buckwheats) adapted to rock outcrop habitats already existing on Soledad Mountain will occur in isolated groupings. Areas along the perimeter of the pit will be fenced for safety. A portion of the pit haul road and flat service areas (estimated at 10% will be ripped and revegetated.

7.3 Spent Ore Heap

The spent ore heap will be rough graded and contoured to reduce slopes and blend with surrounding topography. Graded surfaces will be formed into catchments basins and seeded. It is not anticipated that fertilizer or soil amendments will be needed. The goal of reclamation in the heap leach area will be the creation of contoured, active and naturally revegetated areas that blend unobtrusively into the gentle slopes surrounding the leach site. Heap detoxification and recontouring will be accomplished as described in the closure plan.

Outslopes will be regraded after detoxification is complete. The liners will be pulled and covered. Outslopes will be graded to a final 2.5H:1V slope, so that the sharp contours of the heap will be appreciably softened and the graded material will extend outward far enough to obliterate the upslope perimeter berm that prevents surface water run on to the heap during active operations. Drainage on and around the heap will direct runoff for reclamation and revegetation enhancement. In addition to regrading the heap outslopes, the haul road ramps over the interceptor ditches will be removed. This will include the removal of any culverts required during operations and will allow the reestablishment of free-flowing drainage in this area.

Stabilization of the post-closure heap landform will be achieved through the regrading and slope reduction discussed in preceding paragraphs. Given the final 2.5H:1V slope configuration, the spent ore of the heap will be stable. For the aesthetics of the project from visible points on nearby roads, some mounding of the top of the heap will be included during regrading activities. This will serve a dual purpose: (1) small scale reduction of visual contrast with surrounding landforms and (2) creation of microsite hollows and depressions for revegetation purposes.

After recontouring, microsite hollows and garden spots will be selectively formed on the top and slopes of the heap. Revegetation will then proceed in the manner described in Section 6.4 and 6.5. It is likely that seeding of the entire heap surface would be ineffective; rather, selective seeding will be in the garden spots, with light seeding of the overall heap. The overall goal of revegetation on the heap, as well as on other project site disturbances, will be a productive vegetation cover for habitats and to allow a mature ecosystem to develop.

7.4 Facilities, Access and Haul Roads

The decommissioned and salvaged facilities sites such as offices, shops, laydown, and boneyard sites will be ripped, contoured, and seeded as described in Section 6. After decisions have been made as to which roads will be abandoned and reclaimed, culverts will be removed and the roads will be graded for sloping and drainage reestablishment. Decisions regarding road reclamation will be consistent with the approved end use of the road. Safety berms and ditches will be graded and filled to create contours that blend with the landscape. The compacted surfaces of the roads will be ripped, and water catchment basins established were possible.

Revegetation will be by direct seeding and by covering portions of the surface with growth media as a seed source, as available. The haul road corridors will receive some natural reseeding from nearby undisturbed vegetation. Other roads on the property will be reclaimed in conjunction with the mine dumps and pit areas.

At the completion of reclamation, fencing will be left around areas where beneficial for natural vegetation and/or in restricted areas to block access in order to minimize hazards to public safety. The remaining fencing will be removed to re-establish public access to the site.

Attachment E

SITE DRAINAGE PLAN

THE GLASGOW ENGINEERING GROUP, INC.
7393 South Everett Court
Littleton, Colorado 80123
Phone No. (303) 904-4614
FAX No. (303) 979-8166

May 23, 1997
Proj. No. 00704

Mr. Tony Casagranda
Golden Queen Mining Corporation
11847 Gempen Street
Mojave, California 93501

Re: Soledad Mountain Project
Response to Kern County Planning Department Office Memorandum Dated May 16, 1997

Dear Tony,

We have completed our review of the Kern County Planning Department's comments and concerns presented in their office memorandum dated May 16, 1997. Our responses to these comments and concerns presented in the memorandum are presented below. These responses are based on discussions with you and a telephone conversation with Mr. Aaron Leicht of the Planning Department. The item number of each response corresponds with the order of comments in the memorandum.

1. The grading plan has been revised to show minimum drainage slopes to be 1%.

2. Drainage channel cross sections shown in the plans have been set to minimize the width of the channels and areas of disturbance. The channels will be maintained as necessary during operation to prevent erosion and breaching of the channels. In areas of natural alluvial ground, the side slopes will be flattened to 2H:1V. Upon closure of the project area, the drainage channels remaining in place or newly constructed will have side slopes suitable foe revegetation except those cut into rock.

3. The intent of the design was for the ponds to be constructed in cut. Detail 11 on Drawing No. 6 has been revised to further show the pond storage area to be below the natural ground surface. It is understood that freeboard for the overflow spillway may be obtained by construction of a berm around the pond. The spillway channel is to be properly armored to prevent scouring in the event of a discharge.

4. The storm water pond volumes have been checked and revised to the volumes calculated by the HEC-1 model for the 100 yr, 24-hr storm event. The design runoff volumes for the storm water ponds were previously estimated from the average initial and final flow rates for the design storm event. Drainage areas B4A and B4B drain to the East pond and B3A through E drain to the West pond. The adjusted volumes for the ponds are 338,000 cubic feet and 409,000 cubic feet in the West and East ponds respectively. The depth and width of each of the ponds has been corrected in the table in Detail 11 on Drawing No. 6.

5. The typical section in Detail 11 on Drawing No. 6 show the spillway to be cut into natural ground. The channel from the pond will be directed to the nearest existing/natural drainage channel. Actual alignment of the spillway and overflow channel will be determined as part of the field layout and construction of the pond.

6. A signed and stamped letter of the Soledad Mountain Project Grading Plan layout and Design Summary - Revision 1, dated March 30, 1997, is enclosed with this letter.

I believe the above responses address the concerns and comments presented in the Kern County Planning Department's memorandum dated May 16, 1997. The revised drawings showing the corrections and revisions noted above are enclosed with this letter. If you should have any questions or require additional information concerning the drainage plan layout and design criteria, please call me.

Sincerely,
THE GLASGOW ENGINEERING GROUP, INC.

Don A. Poulter, P.E.
President

Enclosures:
1 letter
2 sets of 5 drawings

THE GLASGOW ENGINEERING GROUP, INC.
7393 South Everett Court
Littleton, Colorado 80123
Phone No. (303) 904-4614
FAX No. (303) 979-8166

March 20, 1997

Mr. Tony Casagranda
Golden Queen Mining Corporation
11847 Gempen Street
Mojave, California 93501

Re: Soledad Mountain Project Grading Plan Layout and Design Criteria Summary - Revision No. 1

Dear Tony:

This letter presents a revised summary of the design criteria and layout for run-off control for the Soledad Mountain Project site facilities. The intent of this grading plan is to provide the basis for the application and approval of the Kern County Grading Permit. Furthermore, it will serve as the general elevation control for plan layouts and hardstand elevations to be constructed for the project. Final grade elevations and site runoff from these facilities should be set to comply with this grading plan.

Details for specific items requiring spill control and containment have not been included in this plan. Such details will be specific to each facility and dependent upon detailed engineering of the facility. Therefore, for purposes of this plan, the following are assumed to be incorporated into final facility designs.

1. Direct precipitation into the fuel storage areas will be contained within the storage facility or routed to a lined containment pond as outlined in Titles 22 and 23 of the California Code of Regulations (CCR) for these areas.

2. Surface runoff from ready-line areas shall be contained on site as outlined in Titles 22 and 23 of the CCR for these areas.

3. Solvents, grease, fuels and other such discharges from the maintenance, truck shop, and vehicle wash areas shall be contained and disposed as provided in Titles 22 and 23 of the CCR for these materials.

4. Hazardous waste and chemical storage facility areas will be sloped to divert runoff away from the storage area. The storage facilities will be designed for containment of direct precipitation and spills as outlined in Titles 22 and 23 of the CCR.

The primary design objectives used to develop the drainage plan and ditch routing for the Soledad Mountain Project are as follows:

1. Segregate runoff from disturbed and undisturbed areas to the extent practical;

2. Collect and contain direct precipitation onto the agglomerator area, conveyor corridor, and solution tanks area and route it to the leach pad;

3. Route ditches from disturbed area to sediment containment ponds designed for zero discharge of runoff for storms up to the 100-yr., 24-hr design event;

4. Route surface runoff from mine waste overburden piles into the mine pit; and

5. Use best management practices as applicable to reduce and control erosion.

For design purposes, peak flows in main storm water collection and diversion ditches were estimated for the 24-hour duration storm event with a 100-yr. return period. The total precipitation for this design event was estimated to be 3.6 inches based on project design data provided by the Golden Queen Mining Company. Peak flows and corresponding flow depths were calculated using the HEC1 computer program and the following assumed watershed characteristics.

Assumptions used in development of the grading plan were:

1. All undisturbed areas have little to no soil or vegetation cover. Therefore the hydrologic condition is poor.
2. Volcanic rock is the primary material in undisturbed areas of the contributing watersheds. Volcanic outcrops cover most of the steeply sloped undisturbed areas.
3. Any cover soil in disturbed areas will be removed and stockpiled for later use as growth media.
4. Haul roads and facilities areas will be constructed of common excavation material or fill from overburden volcanic rock excavated during initial pit development. This rock will be the first layer removed from the pit and is assumed to be relatively broken up and weathered.
5. Although constructed from overburden rock, haul roads and facilities areas will be relatively impervious due to weathering and mechanical breakdown of the rock and compaction from mine traffic.
6. Overburden rock is assumed to have properties represented by hydrologic group A.
7. Watershed areas will change over the life of the project as the pit, waste rock disposal, and heap leach pad areas, and haul roads are developed over the life of the project. The determination of watershed areas used in the design layouts and runoff calculations are discussed below.

Based on these assumptions, the surface conditions in the contributing watersheds were assumed to have hydrologic properties represented by the curve numbers listed below.

Material and Location	CN
1. Volcanic Rock covering slopes	98
2. Volcanic Overburden in Rock Dump	63
3. Volcanic Overburden on Facilities Areas	95
4. Volcanic Overburden on Haul Roads	95

Diversion ditches were sized based upon the flow depths corresponding to the estimated peak flows. Channel depths were sized by adding 0.5 feet of freeboard to the peak flow depths and rounding the resulting depth up to the nearest 0.5 foot-increment.

The contributing watersheds for the diversion ditches in the plant and leach pad area will be changing continually over the life of the mine due to the development of the heap leach pad and mine pit. Using the watershed configurations as they will exist at project start-up would significantly overestimate the runoff during the life of the mine. Conversely, using the final watershed configuration after the heap leach pad mine pit have been completely developed would result in the underestimation of flows during operations.

Two design considerations were used to account for the changing watershed configurations in the mine pit and heap leach pad areas during operations. One consideration was to estimate the peak flows to the ditches for both the initial and ultimate watershed configurations and use the average of these two flows for design of the ditches. The other consideration was to divert runoff from the slope above the leach pad and plant areas into the mine pit at the southwest end of the leach pad. This area represents the area of greatest change in runoff quantities over the life of the project. The mine pit at the southwest end of the heap leach pad will be developed during the beginning of operations and can be used to receive the runoff from the ditch. This diversion ditch into the pit will carry significantly reduced flows as the main mine pit is developed over the life of the project. As a result of separating this runoff from the plant and heap leach pad facilities, the change in watershed areas in these areas over the life of the project is greatly reduced. Therefore, the impact to the diversion ditch designs through the plant area and around the heap leach pad is less significant.

It was found to be impractical to segregate and divert runoff from undisturbed areas from the runoff of disturbed areas due to the close proximity of the project facilities to one another and the minimal drainage area above the facilities. As a result, the drainage plan and ditch routing are designed to contain all storm water runoff within the property rather than routing the ditches to merge with the area existing drainage patterns at the project boundaries. This will be accomplished as follows. The leach pad area is designed to contain all direct precipitation onto it, the conveyor corridor, solution tank pad, and the agglomerator area. All other drainage from disturbed areas will discharge into the mine pit or into sediment containment ponds located at the property boundaries.

The sediment containment ponds are designed to contain the estimated volume of runoff from the 100-yr., 24-hr design storm event. An emergency spillway is sized to pass the peak flow of the 100-yr., 24-hr storm in the event of a back-to-back occurrence of the design storm.

Water collected in the sediment containment ponds will be dissipated through evaporation or used as a process water supply. Sediment will be removed as necessary to maintain the design storage capacity. The sediments will be deposited in the leach pad area or waste rock piles.

The drainage areas for the waste rock piles will continually increase as each area is developed to its design capacity. Therefore, the diversion ditches for each area was designed for the final configuration of the waste rock piles. Runoff from precipitation was only considered for the top surface of the piles. As discussed below, runoff from the slopes and from infiltration through the waste rock piles existing the toe areas was determined to be very unlikely to occur.

1. Average annual and storm event precipitation in the project area are insufficient to increase and sustain the moisture content of the waste rock that would result in filtration (seepage) of excess moisture through the waste rock.

2. In general, the moisture content of the waste rock would be 10% (by weight) or greater for filtration of precipitation to occur through the waste rock. The waste rock will be excavated and placed at a natural moisture content of about 3%. This 7% increase in moisture content represents about 1.7 inches of precipitation per foot of depth of waste rock. Due to evaporation, the near surface material are usually moisture deficient and will retain the infiltrated precipitation.

3. The top surface of the waste rock piles will be compacted from equipment traffic which will promote runoff and further reduce infiltration.

4. There are no occurrences of surface waters or springs in the areas of the waste rock piles. Therefore, discharge of water from the toe areas of the waste rock piles is not of concern for this project.

5. Observation of existing waste rock piles in the area of recently operated and historic mines in the project area found no signs of precipitation infiltration and from the toe of the waste piles.

If you should have any questions or require additional information concerning the drainage plan layout and design criteria, please call me.

Sincerely,

THE GLASGOW ENGINEERING GROUP, INC.

Don A. Poulter, P.E.

President

REGISTERED PROFESSIONAL ENGINEER
DONALD ANDREW POULTER
May 24, 1997
No. C-32075
Exp. 8-13-97
CIVIL
STATE OF CALIFORNIA

SITE DRAINAGE PLAN

EXHIBITS

GRADING PLAN

FOR THE

SOLEDAD MOUNTAIN PROJECT
HEAP LEACH FACILITIES

MOJAVE, CALIFORNIA

PREPARED FOR

Golden Queen Mining Company, Inc.

11847 Gempen Street
Mojave, California 93501

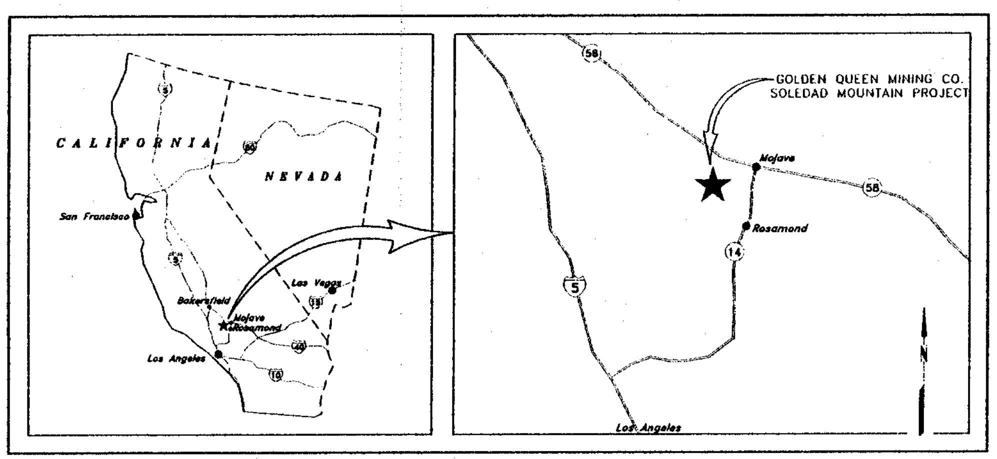
PREPARED BY

The Glasgow Engineering Group, Inc.

7393 South Everett Court
Littleton, Colorado 80123
(303) 904-4614

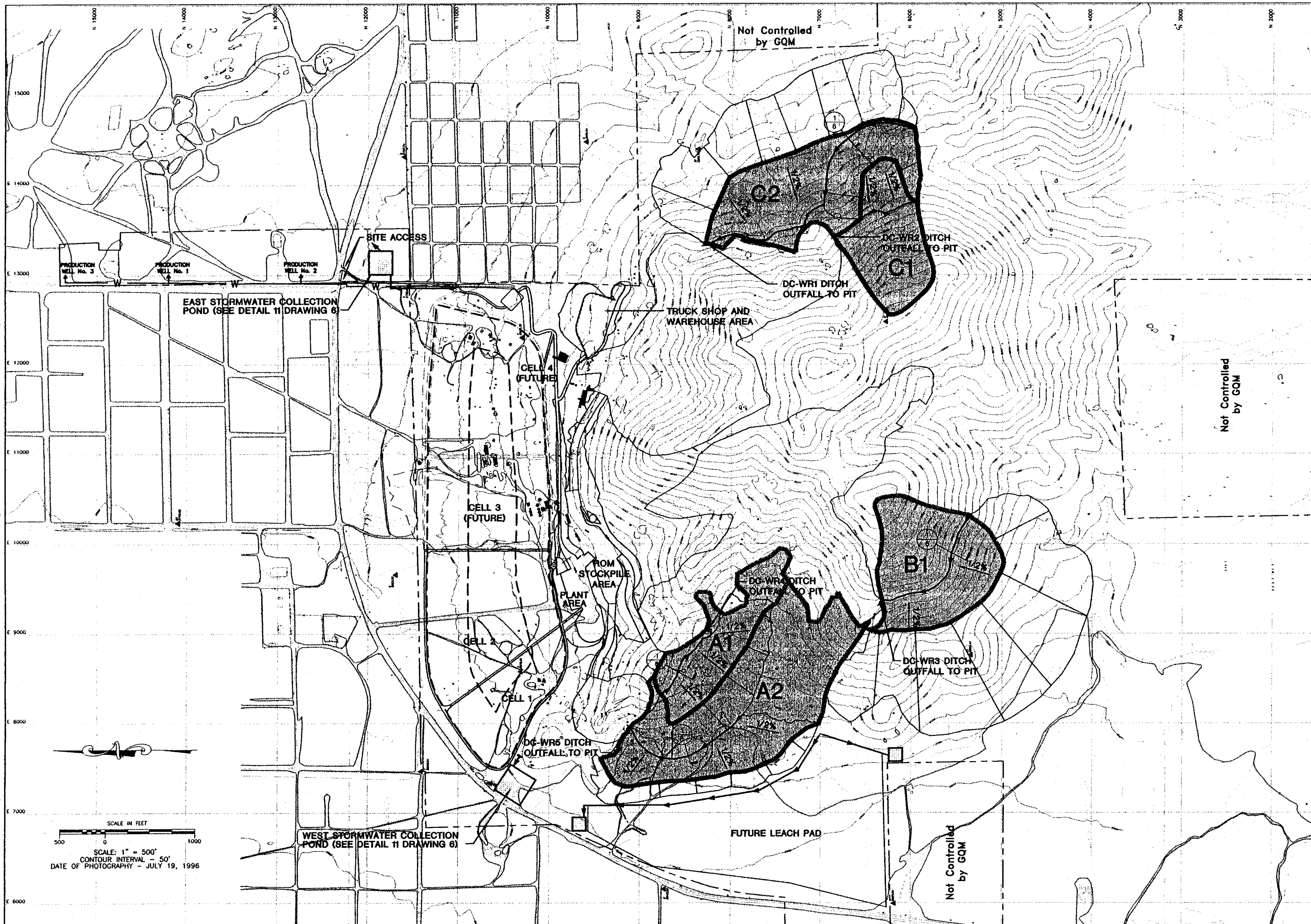
REGISTERED PROFESSIONAL ENGINEER
No. C-32075
Exp.
CIVIL
STATE OF CALIFORNIA

GENERAL LOCATION MAP



INDEX OF DRAWINGS

DRAWING No.	TITLE	REVISION
1	TITLE DRAWING AND GENERAL LOCATION	–
2	SITE PLAN	A
3	GRADING PLAN LEACH PAD AND PLANT AREA	A
4	GRADING PLAN PROCESS AREA	A
5	GRADING PLAN TRUCK SHOP AND WAREHOUSE	A
6	TYPICAL DETAILS	A
7	PLANT AREA WATERSHED DELINEATION	B
8	MINE OVERBURDEN DISPOSAL PILE WATERSHED DELINEATION	B



LEGEND

3600	EXISTING INDEX CONTOUR (50 FT INTERVAL)
	EXISTING FENCE LINE
	EXISTING DIRT ROAD
	EXISTING PAVED ROAD
	EXISTING WATER FEATURES
	EXISTING PROPERTY BOUNDARY (APPROXIMATE)
	EXISTING RETAINING WALL
	EXISTING VEGETATION
	EXISTING BUILDING FEATURES
	EXISTING POWERPOLE
	EXISTING TANKS
	HORIZONTAL AND VERTICAL CONTROL
	MINE ADIT
	MINE PROSPECT
	MINE SHAFT
	PROPOSED CONSTRUCTION
▲WSW #1	WATER SUPPLY WELL AND DESIGNATION
	WATER SUPPLY LINE
	DITCH
	WATERSHED CONTRIBUTING TO FLOW OF DITCH INDICATED

OVERBURDEN PILE CHANNEL I.D.	PEAK FLOW (CFS)	SIDE SLOPE (H: V)	BOTTOM WIDTH (FT)	MINIMUM CHANNEL DEPTH (FT)	MINIMUM BOTTOM SLOPE (%)
DC-WR1	61	1:1	0	4.5	0.25
DC-WR2	55	1:1	0	4.5	0.25
DC-WR3	85	1:1	0	5.0	0.25
DC-WR4	15	1:1	0	3.0	0.25
DC-WR5	90	1:1	0	5.0	0.25

REVISIONS

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE
B	WATERSHED DELINEATION				4/97

REVISIONS

No.	DESCRIPTION	BY	CHKD.	APPROVED	DATE

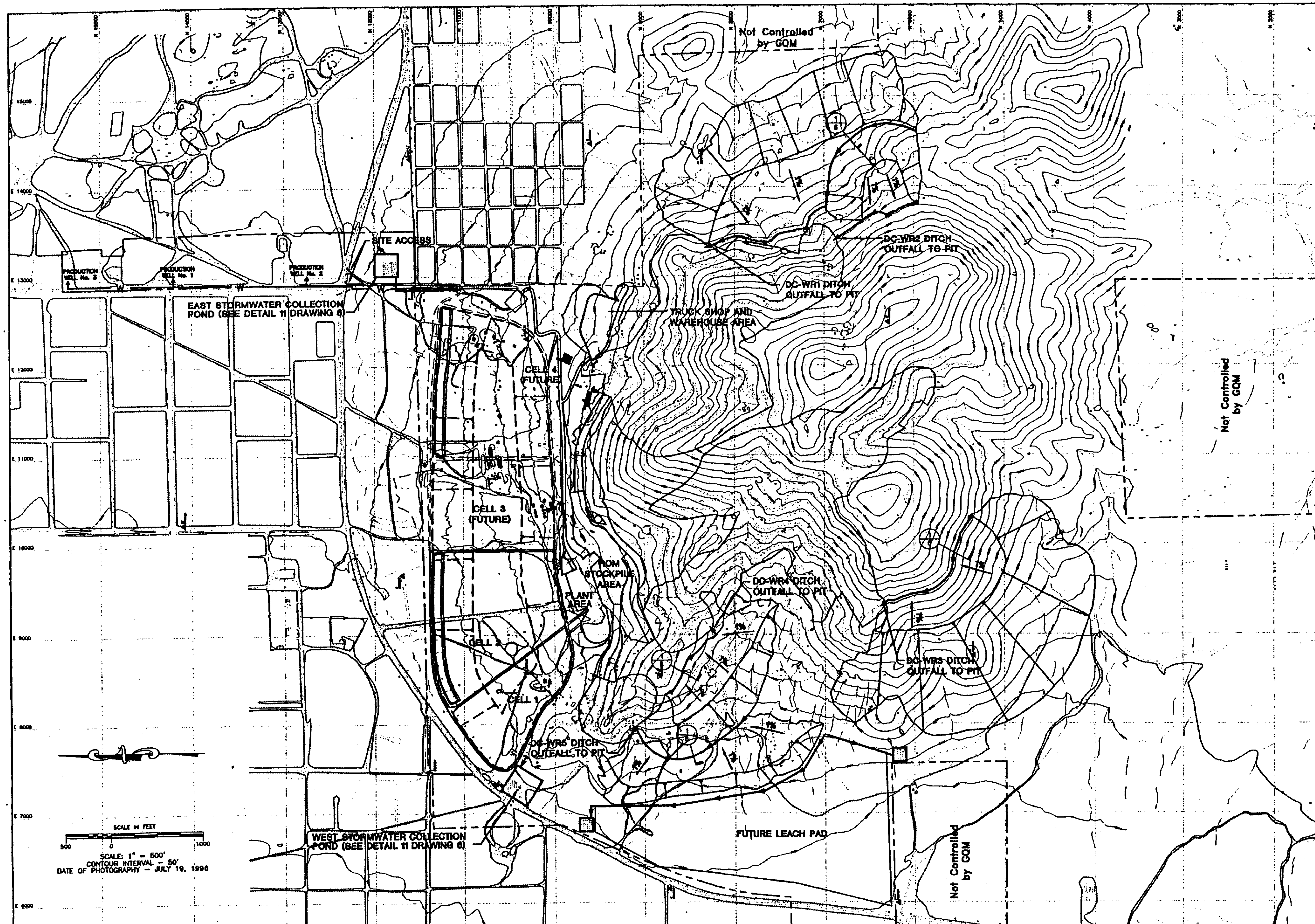
REGISTERED PROFESSIONAL ENGINEER No. C-32075 Exp. CIVIL STATE OF CALIFORNIA

PREPARED BY
The Glasgow Engineering Group Inc.
7393 South Everett Court
Littleton, CO 80123
(303) 904-4614

PREPARED FOR
Golden Queen Mining Company, Inc.
11847 GEMPEN STREET
MOJAVE, CA 93501

TITLE
MINE OVERBURDEN DISPOSAL PILE WATERSHED DELINEATION.

PROJECT	17-650	DATE	APRIL 1997	DRAWING	REVISION
SCALE	1" = 500'	ACAD FILE	17650WSR	8	B



LEGEND

- EXISTING INDEX CONTOUR (50 FT INTERVAL)
- EXISTING FENCE LINE
- EXISTING DIRT ROAD
- EXISTING PAVED ROAD
- EXISTING WATER FEATURES
- EXISTING PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING RETAINING WALL
- EXISTING VEGETATION
- EXISTING BUILDING FEATURES
- EXISTING POWERPOLE
- EXISTING TANKS
- HORIZONTAL AND VERTICAL CONTROL
- MINE ADIT
- MINE PROSPECT
- MINE SHAFT
- PROPOSED CONSTRUCTION
- WSW #1 WATER SUPPLY WELL AND DESIGNATION
- WATER SUPPLY LINE
- DITCH
- MINE PIT
- MINE OVERBURDEN DISPOSAL PILE
- LEACH PAD AND PLANT AREA

OVERBURDEN PILE CHANNEL I.D.	PEAK FLOW (CFS)	SIDE SLOPE (H: V)	BOTTOM WIDTH (FT)	MINIMUM CHANNEL DEPTH (FT)	MINIMUM BOTTOM SLOPE (%)
DC-WR1	61	1:1	0	4.5	0.25
DC-WR2	55	1:1	0	4.5	0.25
DC-WR3	85	1:1	0	5.0	0.25
DC-WR4	15	1:1	0	3.0	0.25
DC-WR5	90	1:1	0	5.0	0.25

REVISIONS

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE
A	FINAL DRAFT GRADING REPORT				12/96
B	REVISED GRADE SLOPES FROM 1/2% TO 1%				5/97

REVISIONS

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE

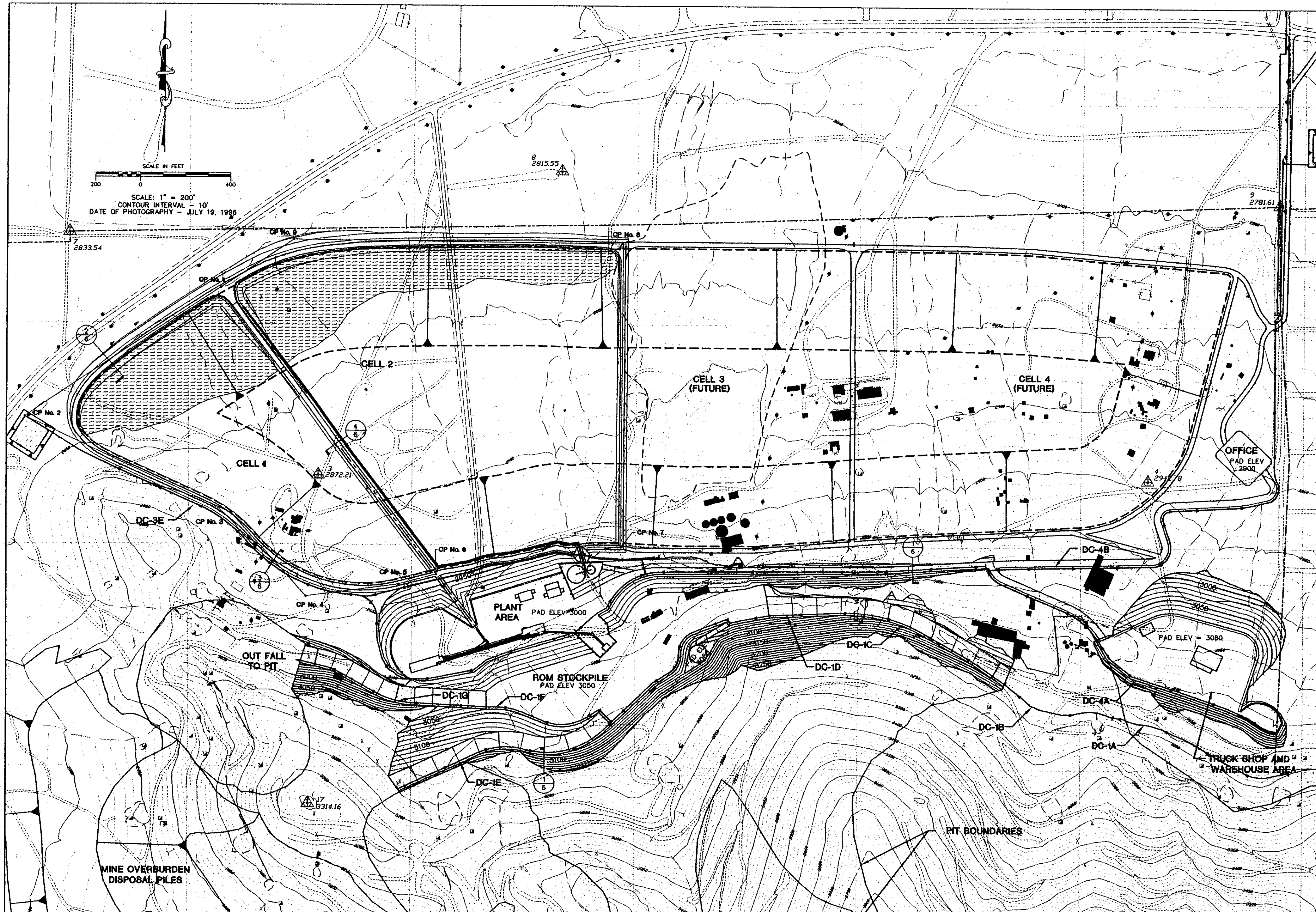
REGISTERED PROFESSIONAL ENGINEER No. C 32075 Exp. 6/13/97 CIVIL STATE OF CALIFORNIA

PREPARED BY
The Glasgow Engineering Group Inc.
7393 South Everett Court
Littleton, CO 80123
(303) 904-4614

PREPARED FOR
Golden Queen Mining Company, Inc.
11847 GEMPEN STREET
MOJAVE, CA 93501

TITLE
SITE PLAN

PROJECT 17-650 | DATE DEC 1996 | DRAWING 2 | REVISION B
SCALE 1" = 500' | ACAD FILE 176500SP



LEGEND

- EXISTING INDEX CONTOUR (50 FT INTERVAL)
- EXISTING INTERMEDIATE CONTOUR (10 FT INTERVAL)
- EXISTING FENCE LINE
- EXISTING DIRT ROAD
- EXISTING PAVED ROAD
- EXISTING WATER FEATURES
- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING FEATURES
- EXISTING BUILDING FEATURES (SEE NOTE 1)
- EXISTING FOUNDATION RUINS (SEE NOTE 2)
- EXISTING POWERPOLE
- EXISTING TANKS
- HORIZONTAL AND VERTICAL CONTROL
- MINE ADIT
- MINE PROSPECT
- MINE SHAFT
- 3600 PROPOSED INDEX CONTOUR (50 FT INTERVAL)
- PROPOSED INTERMEDIATE CONTOUR (10 FT INTERVAL)
- PROPOSED HAUL ROAD
- PROPOSED PIT BOUNDARY
- PROPOSED BUILDING FEATURE
- PROPOSED RETAINING WALL
- WATER SUPPLY LINE
- WATER SUPPLY LINE STUB
- DITCH

NOTES

1. EXISTING BUILDINGS AND STRUCTURES TO BE DEMOLISHED AND HAULED TO A CLASSIFIED WASTE DUMP PER LOCAL REGULATIONS.
2. CONCRETE FOUNDATION AND FLOOR SLAB RUINS TO BE BURIED AT A DESIGNATED ON SITE LOCATION APPROVED BY OWNER.
3. SHAFTS AND EXPLORATION PITS TO BE SEALED PER SPECIFICATIONS FOR LEACH PAD CONSTRUCTION.
4. LEACH PAD CELLS DESIGNED AS SELF CONTAINED UNITS WITH NO RUNOFF EXITING THE PAD AREA.

CONTROL POINTS

ID	EASTING	NORTHING
CP No. 1	8140.43	11163.27
CP No. 2	7267.87	10574.61
CP No. 3	8190.57	10138.24
CP No. 4	8526.12	9767.06
CP No. 5	8941.42	9822.15
CP No. 6	9109.34	9867.84
CP No. 7	9934.66	9993.76
CP No. 8	9934.89	11367.86
CP No. 9	8463.20	11381.01

CHANNEL I.D.	PEAK FLOW (CFS)	SIDE SLOPE (H: V)	BOTTOM WIDTH (FT)	MINIMUM CHANNEL DEPTH (FT)	MIN SLOPE (%)
DC-1A	44	1:1	1.5	2.5	1.0
DC-1B	133.5	1:1	1.5	4.0	1.0
DC-1C	161	1:1	1.5	3.0	5.0
DC-1D	359.5	1:1	2.5	5.0	1.0
DC-1E	103	1:1	1.5	2.5	5.0
DC-1F	445	1:1	4.0	5.0	1.0
DC-1G	445	1:1	2.5	3.5	8.0
DC-2	-	1:1	1.5	2.0	0.25
DC-3A	22	1:1	1.5	2.0	1.0
DC-3B	5	1:1	1.5	2.0	0.25
DC-3C	13	1:1	1.5	2.0	0.25
DC-3D	38	1:1	1.5	3.0	0.25
DC-3E	68	1:1	2.0	3.5	0.25
DC-4A	50	1:1	1.5	3.0	0.50
DC-4B	58	1:1	1.5	3.5	0.50

REVISIONS

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE
A	FINAL DRAFT GRADING REPORT				12/96

REVISIONS

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE

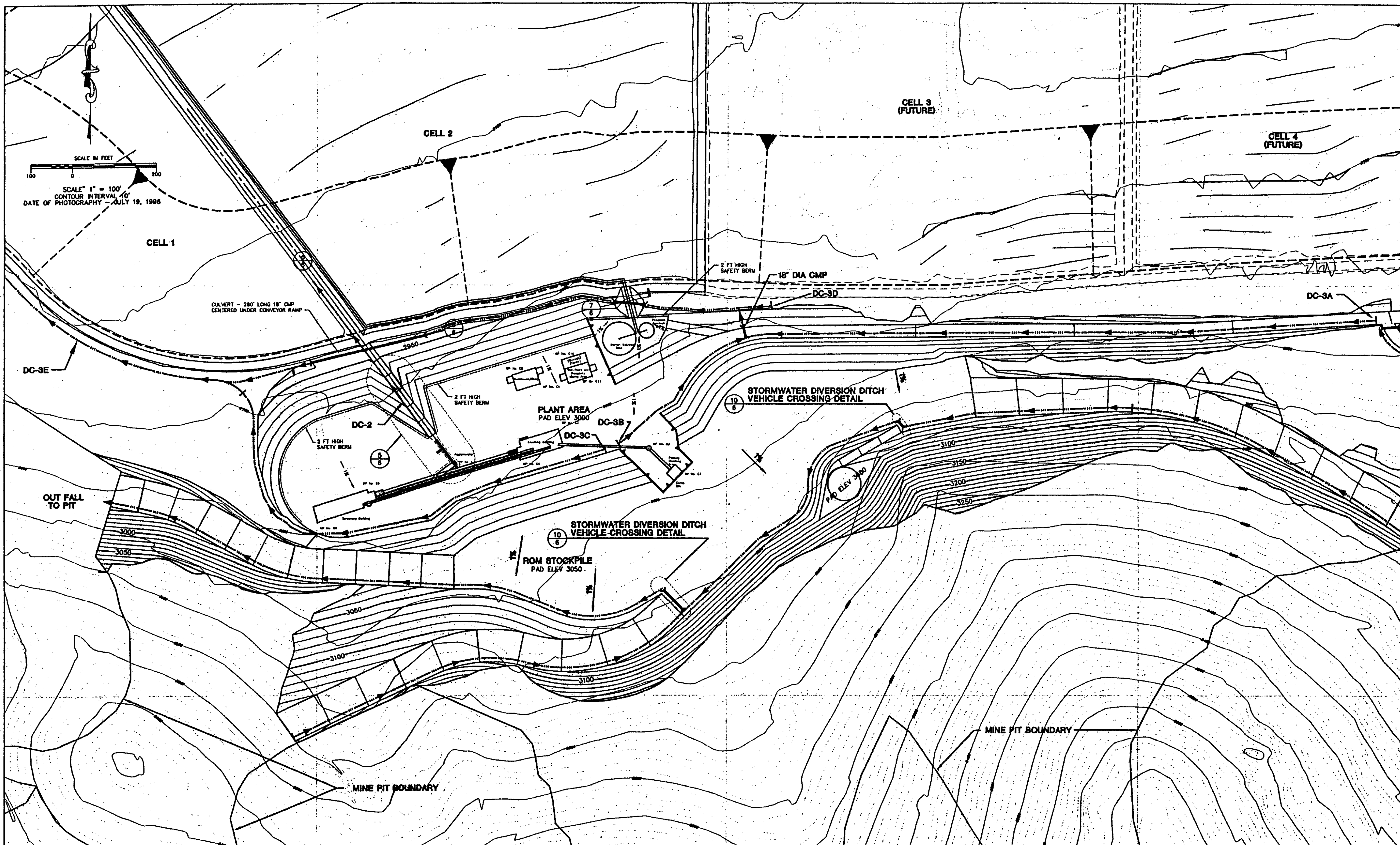
REGISTERED PROFESSIONAL ENGINEER
No. C-32075
Exp 8-1-97
CIVIL
STATE OF CALIFORNIA

PREPARED BY
The Glasgow Engineering Group Inc.
7393 South Everett Court
Littleton, CO 80123
(303) 904-4614

PREPARED FOR
Golden Queen Mining Company, Inc.
11847 GEMPEN STREET
MOJAVE, CA 93501

TITLE
GRADING PLAN LEACH PAD AND PLANT AREA

PROJECT: 17-650 | DATE: DEC 1996 | DRAWING: 3 | REVISION: A
SCALE: 1" = 200' | ACAD FILE: 17650LPG



No.	DESCRIPTION	BY	CHKD.	APPROVED	DATE
A	FINAL DRAFT GRADING REPORT				12/96
B	REVISED GRADE SLOPES FROM 1/2% TO 1%				5/97

REVISIONS

No.	DESCRIPTION	BY	CHKD.	APPROVED	DATE

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
No. C-32075
Exp 8-11-97
CIVIL
STATE OF CALIFORNIA
DON A. FOOTER, P.E.

PREPARED BY

The Glasgow Engineering Group Inc.
7393 South Everett Court
Littleton, CO 80123
(303) 904-4614

PREPARED FOR

Golden Queen Mining Company, Inc.
11847 GEMPEN STREET
MOJAVE, CA 93501

TITLE

GRADING PLAN PROCESS AREA

PROJECT 17-650 | SCALE 1" = 100' | DATE DEC 1996 | ACAD FILE 17650PGP | DRAWING 4 | REVISION B

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE
A	FINAL DRAFT GRADING REPORT				12/96
B	REVISED GRADE SLOPES FROM 1/2% TO 1%				5/97

REVISIONS

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
No. C-32075
Exp
CIVIL
STATE OF CALIFORNIA

PREPARED BY

The Glasgow Engineering Group Inc.

7393 South Everett Court
Littleton, CO 80123
(303) 904-4614

PREPARED FOR

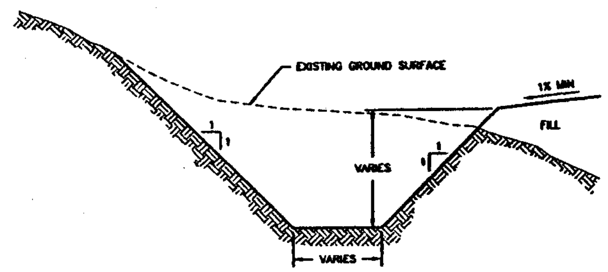
Golden Queen Mining Company, Inc.

11847 GEMPEN STREET
MOJAVE, CA 93501

TITLE

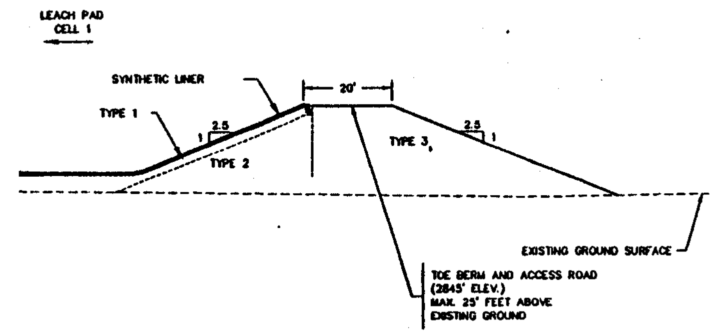
GRADING PLAN TRUCK SHOP AND WAREHOUSE

PROJECT	17-650	DATE	DEC 1996	DRAWING	REVISION
SCALE	1" = 100'	ACAD FILE	17650TSW	5	B



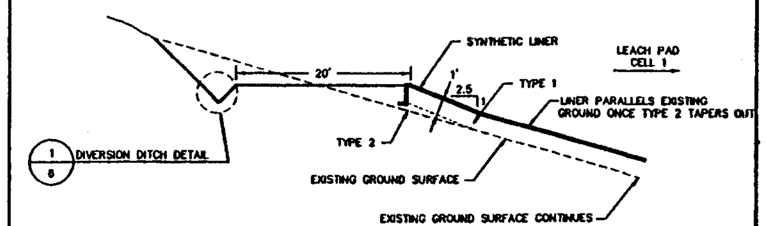
① DIVERSION DITCH DETAIL

NOT TO SCALE



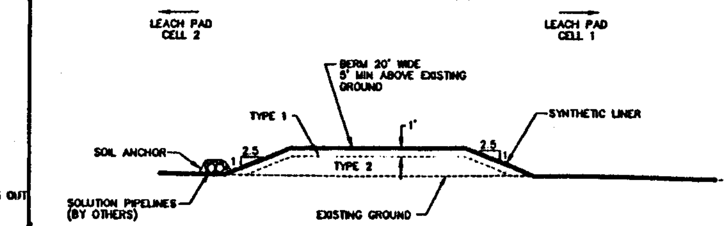
② TOE BERM DETAIL

NOT TO SCALE



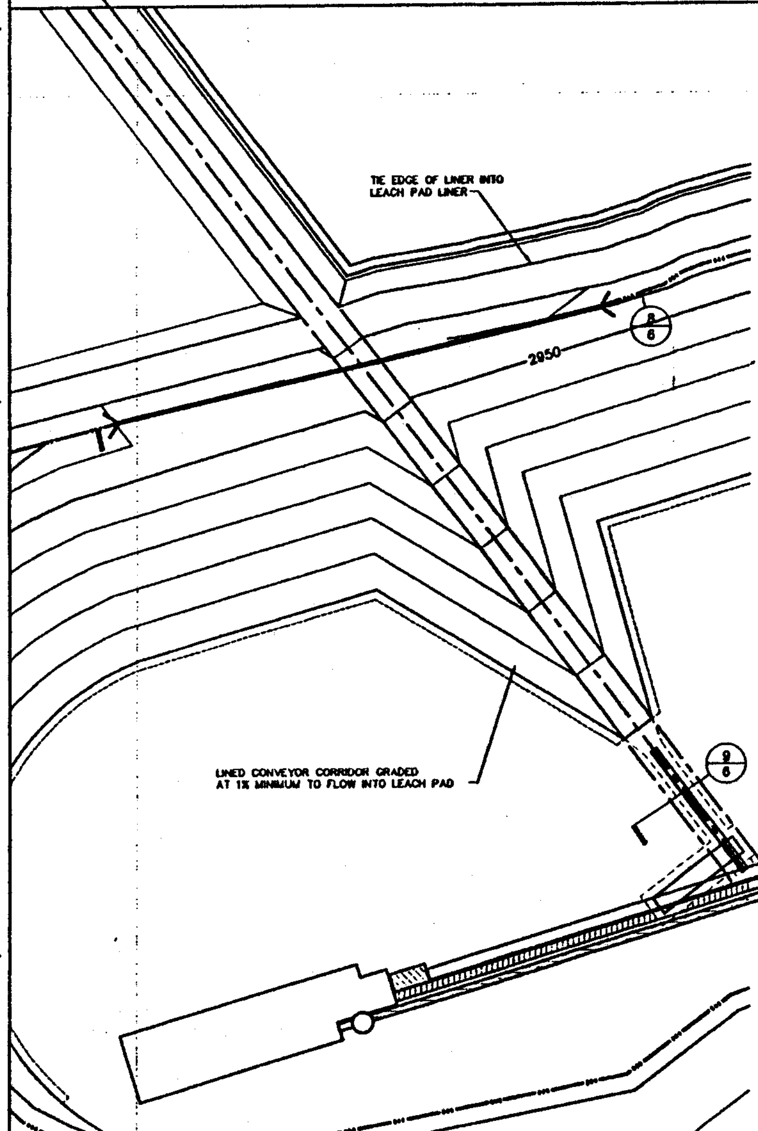
③ PERIMETER BERM DETAIL

NOT TO SCALE



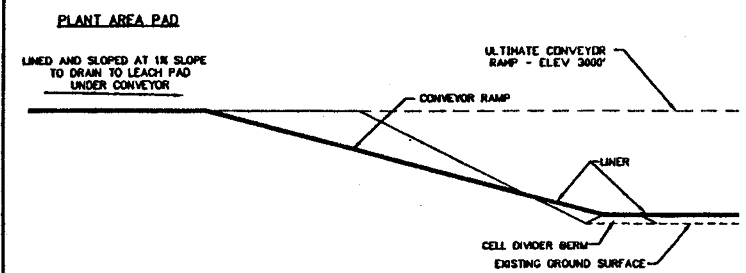
④ CELL DIVIDER BERM DETAIL

NOT TO SCALE



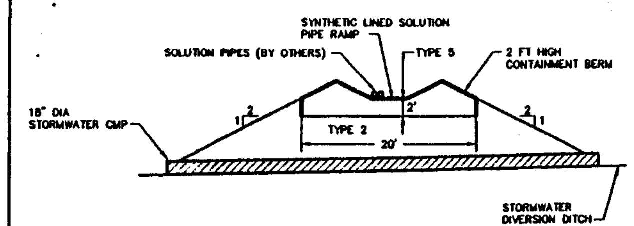
⑤ LINED CONVEYOR RAMP DETAIL

SCALE: 1" = 60'



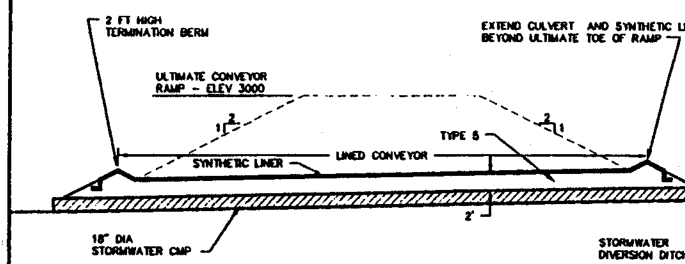
⑥ CONVEYOR RAMP PROFILE DETAIL

NOT TO SCALE



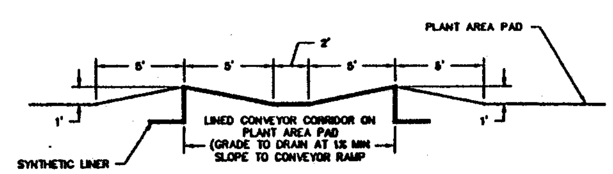
⑦ SOLUTION PIPE RAMP DETAIL

NOT TO SCALE



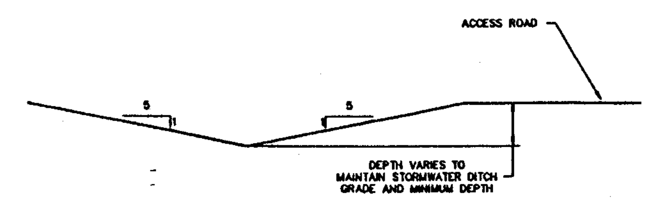
⑧ CONVEYOR RAMP DETAIL

NOT TO SCALE



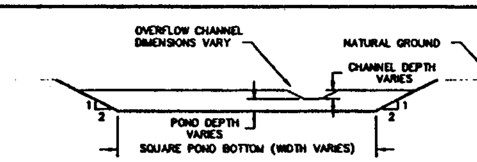
⑨ PLANT AREA CONVEYOR CORRIDOR DETAIL

NOT TO SCALE

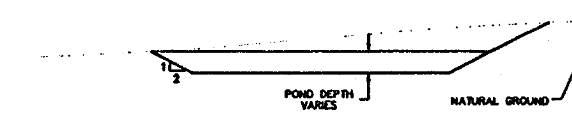


⑩ STORMWATER DIVERSION DITCH - VEHICLE CROSSING DETAIL

NOT TO SCALE



CROSS-SECTION A-A'



CROSS-SECTION B-B'

⑪ STORMWATER COLLECTION PONDS DETAIL

NOT TO SCALE

NOTE: SPILLWAY CHANNEL TO BE ARMORED AS NECESSARY FOR EROSION PROTECTION. TYPE AND EXTENT OF ARMOR SUBJECT TO GROUND CONDITIONS EXPOSED UPON CONSTRUCTION.

	STORMWATER COLLECTION POND				OVERFLOW CHANNEL			
No.	DESIGN STORAGE CAPACITY (CUBIC FEET)	ACTUAL STORAGE CAPACITY (CUBIC FEET)	POND DEPTH (FT)	POND BOTTOM WIDTH (FT)	CHANNEL BOTTOM WIDTH (FT)	CHANNEL DEPTH (FT)	SIDE SLOPES (H:V)	MINIMUM BOTTOM SLOPE (%)
WEST	320,000	338,000	15	120	20	2.0	2:1	0.25
EAST	382,000	409,000	15	135	20	2.0	2:1	0.25

REVISIONS

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE
A	FINAL DRAFT GRADING REPORT				12/96
B	REVISED DETAIL 11, GRADE CHANGES FROM 1/2% TO 1%				5/97

REVISIONS

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE

REGISTERED PROFESSIONAL ENGINEER No. C-32075 CIVIL STATE OF CALIFORNIA

PREPARED BY

The Glasgow Engineering Group Inc.
7393 South Everett Court
Littleton, CO 80123
(303) 904-4614

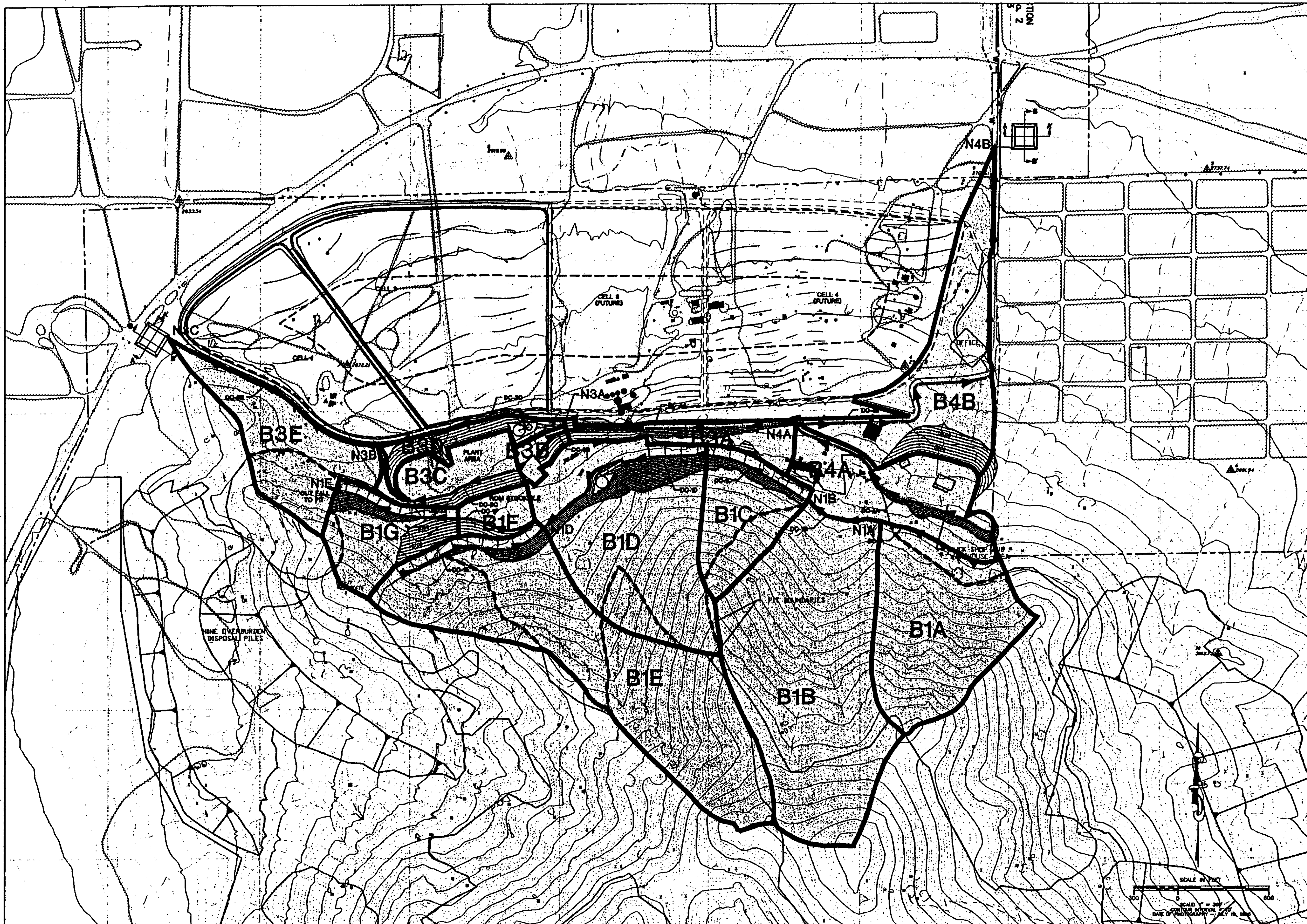
PREPARED FOR

Golden Queen Mining Company, Inc.
11847 GEMPEN STREET
MOJAVE, CA 93501

TITLE

TYPICAL DETAILS

PROJECT	17-650	DATE	DEC 1996	SHEET	REVISION
SCALE	AS SHOWN		17650DET	6	B



LEGEND

- EXISTING INDEX CONTOUR (50 FT INTERVAL)
- EXISTING INTERMEDIATE CONTOUR (10 FT INTERVAL)
- EXISTING FENCE LINE
- EXISTING DIRT ROAD
- EXISTING PAVED ROAD
- EXISTING WATER FEATURES
- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING FEATURES
- EXISTING BUILDING FEATURES (SEE NOTE 1)
- EXISTING FOUNDATION RUINS (SEE NOTE 2)
- EXISTING POWERPOLE
- EXISTING TANKS
- HORIZONTAL AND VERTICAL CONTROL
- MINE ADIT
- MINE PROSPECT
- MINE SHAFT
- 3600 PROPOSED INDEX CONTOUR (50 FT INTERVAL)
- PROPOSED INTERMEDIATE CONTOUR (10 FT INTERVAL)
- PROPOSED HAUL ROAD
- PROPOSED PIT BOUNDARY
- PROPOSED BUILDING FEATURE
- WATER SUPPLY LINE
- WATER SUPPLY LINE STUB
- DITCH
- WATERSHED CONTRIBUTING TO FLOW OF DITCH INDICATED (INITIAL START OF MINING)
- WATERSHED BOUNDARY (FINAL END OF MINING) (B1A, B1B, B1C, B1D, B1E, B1G, B3E)
- N4A • NODE AND ID

CHANNEL I.D.	PEAK FLOW (CFS)	SIDE SLOPE (H:V)	BOTTOM WIDTH (FT)	MINIMUM CHANNEL DEPTH (FT)	MIN SLOPE (%)
DC-1A	44	1:1	1.5	2.5	1.0
DC-1B	133.5	1:1	1.5	4.0	1.0
DC-1C	161	1:1	1.5	3.0	5.0
DC-1D	359.5	1:1	2.5	5.0	1.0
DC-1E	103	1:1	1.5	2.5	5.0
DC-1F	445	1:1	4.0	5.0	1.0
DC-1G	445	1:1	2.5	3.5	8.0
DC-2	-	1:1	1.5	2.0	0.25
DC-3A	22	1:1	1.5	2.0	1.0
DC-3B	5	1:1	1.5	2.0	0.25
DC-3C	13	1:1	1.5	2.0	0.25
DC-3D	38	1:1	1.5	3.0	0.25
DC-3E	68	1:1	2.0	3.5	0.25
DC-4A	50	1:1	1.5	3.0	0.50
DC-4B	58	1:1	1.5	3.5	0.50

REVISIONS

No	DESCRIPTION	BY	CHKD.	APPROVED	DATE
B	WATERSHED DELINEATION				4/97
C	REVISED NODE N4A, ADDED POND CROSS-SECTIONS				5/97

REGISTERED PROFESSIONAL ENGINEER No. C-32075 Exp 6-1-97 CIVIL STATE OF CALIFORNIA

PREPARED BY

The Glasgow Engineering Group Inc.
7393 South Everett Court
Littleton, CO 80123
(303) 904-4614

PREPARED FOR

Golden Queen Mining Company, Inc.
11847 GEMPEN STREET
MOJAVE, CA 93501

TITLE

PLANT AREA WATERSHED DELINEATION

PROJECT 17-650 | DATE APRIL 1997 | DRAWING 7 | REVISION C
SCALE 1" = 300' | CAD FILE 17650PAW

APPENDIX

```
1*************************************                  ******************************************
*                                   *                  *                                        *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1) *                 *  U.S. ARMY CORPS OF ENGINEERS          *
*           MAY   1991              *                  *  HYDROLOGIC ENGINEERING CENTER         *
*        VERSION 4.0.1E             *                  *  609 SECOND STREET                     *
*                                   *                  *  DAVIS, CALIFORNIA 95616               *
* RUN DATE  12/23/96  TIME  12:07:32 *                 *  (916) 551-1748                        *
*                                   *                  *                                        *
*************************************                  ******************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                          HEC-1 INPUT                                          PAGE  1

         LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1       ID   Project:  Golden Queen - Soledad Mountain Project
            2       ID   Input Filename P:\17-650\hec1\hecrun4f.ih1
            3       ID   100 YR. 24 HOUR STORM
*** FREE ***
                    *DIAGRAM
            4       IT       1       0       0    1440       0       0
            5       IN      15       0       0
            6       IO       5       0

            7       KK     B1A
            8       KM   RUNOFF FROM  BASIN B101
            9       KO       0       0       0       0      21
           10       PB     3.6
           11       PC  0.0000  0.0030  0.0050  0.0080  0.0110  0.0130  0.0160  0.0190  0.0220  0.0250
           12       PC  0.0280  0.0310  0.0340  0.0370  0.0410  0.0440  0.0480  0.0510  0.0550  0.0580
           13       PC  0.0620  0.0660  0.0700  0.0740  0.0790  0.0830  0.0880  0.0920  0.0970  0.1020
           14       PC  0.1080  0.1130  0.1190  0.1250  0.1310  0.1380  0.1450  0.1530  0.1610  0.1700
           15       PC  0.1800  0.1900  0.2020  0.2160  0.2350  0.2570  0.2900  0.4000  0.6600  0.7100
           16       PC  0.7350  0.7560  0.7720  0.7880  0.8000  0.8100  0.8200  0.8300  0.8390  0.8470
           17       PC  0.8550  0.8620  0.8690  0.8750  0.8810  0.8870  0.8920  0.8980  0.9030  0.9080
           18       PC  0.9120  0.9170  0.9210  0.9260  0.9300  0.9340  0.9380  0.9420  0.9450  0.9490
           19       PC  0.9520  0.9560  0.9590  0.9630  0.9660  0.9690  0.9720  0.9750  0.9780  0.9810
           20       PC  0.9840  0.9870  0.9890  0.9920  0.9950  0.9970  1.0000
           21       BA  0.0021
           22       LS       0      98
           23       UD   0.077
                    *

           24       KK   ROUTEFROM NODE N1A TO N1B
```

```
  25        RD     532  ).0025    0.02       0    TRAP       0       1
            *

  26        KK     B1B
  27        BA    0.01
  28        LS       0       98
  29        UD   0.182
            *

  30        KK COMBINEHYDROGRAPHS
  31        HC       2
            *

  32        KK   ROUTEFROM NODE N1B TO N1C
  33        RD     730  0.0025    0.02       0    TRAP       0       1
            *

  34        KK     B1C
  35        BA  0.0109
  36        LS       0       98
  37        UD   0.039
            *
1                                  HEC-1 INPUT                                      PAGE  2

LINE        ID.......1. .....2.......3.......4.......5.......6.......7.......8.......9......10

  38        KK COMBINEHYDROGRAPHS
  39        HC       2
            *

  40        KK   ROUTEFROM NODE N1C TO N1D
  41        RD    1230  0.0025    0.02       0    TRAP       0       1
            *

  42        KK     B1D
  43        BA  0.0404
  44        LS       0       97
  45        UD   0.070
            *

  46        KK     B1E
  47        BA  0.0224
  48        LS       0       98
  49        UD   0.073
            *

  50        KK COMBINEHYDROGRAPHS
  51        HC       3
            *

  52        KK   ROUTEFROM NODE N1E TO N1F
  53        RD    1415  0.0025    0.02       0    TRAP       0       1
            *

  54        KK     B1F
  55        BA  0.0198
  56        LS       0       96
  57        UD   0.065
            *

  58        KK COMBINEHYDROGRAPHS
  59        HC       2
            *

  60        KK     B3A
  61        BA  0.0102
```

```
62          LS       0       95
63          UD   0.125
            *

64          KK     83B
65          BA  0.0026
66          LS       0       95
67          UD   0.200
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

68          KK COMBINEHYDROGRAPHS
69          HC       2
            *

70          KK   ROUTEFROM NODE N3A TO N3B
71          RD    1225  0.0025    0.02       0    TRAP       0       1
            *

72          KK     83C
73          BA  0.0101
74          LS       0       95
75          UD   0.434
            *

76          KK     83D
77          BA  0.0067
78          LS       0       95
79          UD   0.181
            *

80          KK COMBINEHYDROGRAPHS
81          HC       3
            *

82          KK   ROUTEFROM NODE N3B TO N3C
83          RD    1465  0.0025    0.02       0    TRAP       0       1
            *

84          KK     83E
85          BA  0.0142
86          LS       0       98
87          UD   0.121
            *

88          KK COMBINEHYDROGRAPHS
89          HC       2
            *

90          KK     84A
91          BA  0.0228
92          LS       0       95
93          UD   0.111
            *

94          KK   ROUTEFROM NODE N4A TO N4B
95          RD    3065  0.0025    0.02       0    TRAP       0       1
            *

96          KK     84B
97          BA  0.0319
98          LS       0       95
99          UD   0.871
            *
```

```
1
                                                  HEC-1 INPUT                                              PAGE  4
         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          100          KK COMBINEHYDROGRAPHS
          101          HC       2
                       *
          102          ZZ
1
              SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    7         B1A
                V
                V
   24        ROUTE
                .
                .
   26           .         B1B
                .           .
                .           .
   30       COMBINE..........
                V
                V
   32        ROUTE
                .
                .
   34           .         B1C
                .           .
                .           .
   38       COMBINE..........
                V
                V
   40        ROUTE
                .
                .
   42           .         B1D
                .           .
                .           .
   46           .           .         B1E
                .           .           .
                .           .           .
   50       COMBINE......................
                V
                V
   52        ROUTE
                .
                .
   54           .         B1F
                .           .
                .           .
   58       COMBINE..........
                .
                .
   60           .         B3A
                .           .
                .           .
   64           .           .         B3B
                .           .           .
                .           .           .
   68           .       COMBINE..........
                .           V
                .           V
```

```
 70         .      ROUTE
            .        .
            .        .
 72         .        .         83C
            .        .          .
            .        .          .
 76         .        .          .         830
            .        .          .          .
            .        .          .          .
 80         .    COMBINE......................
            .        V
            .        V
 82         .      ROUTE
            .        .
            .        .
 84         .        .         83E
            .        .          .
            .        .          .
 88         .    COMBINE..........
            .        .
            .        .
 90         .        .         84A
            .        .          V
            .        .          V
 94         .        .        ROUTE
            .        .          .
            .        .          .
 96         .        .          .         84B
            .        .          .          .
            .        .          .          .
100         .        .       COMBINE...........

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
```

```
1*****************************************
*                                         *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)      *
*             MAY   1991                  *
*          VERSION 4.0.1E                 *
*                                         *
* RUN DATE  12/23/96  TIME  12:07:02      *
*                                         *
*******************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS. CALIFORNIA 95616         *
*          (916) 551-1748               *
*                                       *
*****************************************
```

```
                Project:  Golden Queen - Soledad Mountain Project
                Input Filename P:\17-650\hecl\hecrun4f.1hl
                100 YR. 24 HOUR STORM

  6 IO      OUTPUT CONTROL VARIABLES
                 IPRNT          5  PRINT CONTROL
                 IPLOT          0  PLOT CONTROL
                 QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT      HYDROGRAPH TIME DATA
                  NMIN          1  MINUTES IN COMPUTATION INTERVAL
                 IDATE     1    0  STARTING DATE
                 ITIME       0000  STARTING TIME
                    NQ       1440  NUMBER OF HYDROGRAPH ORDINATES
                NDDATE     1    0  ENDING DATE
                NDTIME       2359  ENDING TIME
                 ICENT         19  CENTURY MARK

           COMPUTATION INTERVAL    0.02 HOURS
                TOTAL TIME BASE   23.98 HOURS
```

ENGLISH UNITS

DRAINAGE AREA	SQUARE MILES
PRECIPITATION DEPTH	INCHES
LENGTH, ELEVATION	FEET
FLOW	CUBIC FEET PER SECOND
STORAGE VOLUME	ACRE-FEET
SURFACE AREA	ACRES
TEMPERATURE	DEGREES FAHRENHEIT

*** ***

```
           ***************
           *             *
  7 KK     *     81A     *
           *             *
           ***************
```

9 KO OUTPUT CONTROL VARIABLES

IPRNT	5	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	1440	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.017	TIME INTERVAL IN HOURS

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+ DC-1A	HYDROGRAPH AT	81A	$\boxed{5.}$	12.00	1.	0.	0.	0.00		
+	ROUTED TO	ROUTE	5.	12.03	1.	0.	0.	0.00		
+	HYDROGRAPH AT	81B	20.	12.07	3.	1.	1.	0.01		
+ DC-1B	2 COMBINED AT	COMBINE	$\boxed{25.}$	12.07	3.	1.	1.	0.01		
+	ROUTED TO	ROUTE	24.	12.10	3.	1.	1.	0.01		
+	HYDROGRAPH AT	81C	26.	12.00	3.	1.	1.	0.01		
+ DC-1C	2 COMBINED AT	COMBINE	$\boxed{46.}$	12.00	6.	2.	2.	0.02		
+	ROUTED TO	ROUTE	44.	12.05	6.	2.	2.	0.02		
+	HYDROGRAPH AT	81D	95.	12.00	11.	4.	4.	0.04		

DC-1E	HYDROGRAPH AT	81E	53	12.00	6.	2.	2.	0.02
DC-1D	3 COMBINED AT	COMBINE	190.	12.00	23.	8.	8.	0.09
+	ROUTED TO	ROUTE	185.	12.03	23.	8.	8.	0.09
+	HYDROGRAPH AT	81F	46.	12.00	5.	2.	2.	0.02
DC-1F	2 COMBINED AT	COMBINE	229.	12.02	28.	9.	9.	0.11
DC-3A	HYDROGRAPH AT	83A	22.	12.03	3.	1.	1.	0.01
DC-3B	HYDROGRAPH AT	83B	5	12.08	1.	0.	0.	0.00
+	2 COMBINED AT	COMBINE	26.	12.03	3.	1.	1.	0.01
+	ROUTED TO	ROUTE	25	12.10	3.	1.	1.	0.01
DC-3C	HYDROGRAPH AT	83C	38 + 13	12.30	3.	1.	1.	0.01
DC-3D	HYDROGRAPH AT	83D	13	12.07	2.	1.	1.	0.01
+	3 COMBINED AT	COMBINE	48.	12.10	7.	2.	2.	0.03
+	ROUTED TO	ROUTE	46.	12.18	7.	2.	2.	0.03
+	HYDROGRAPH AT	83E	32.	12.03	4.	1.	1.	0.01
DC-3E	2 COMBINED AT	COMBINE	68.	12.08	11.	4.	4.	0.04
DC-4A	HYDROGRAPH AT	84A	50.	12.02	6.	2.	2.	0.02
+	ROUTED TO	ROUTE	46.	12.15	6.	2.	2.	0.02
+	HYDROGRAPH AT	84B	26.	12.73	8.	3.	3.	0.03
DC-4B	2 COMBINED AT	COMBINE	58.	12.17	14.	4.	4.	0.05

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	DT	INTERPOLATED TO COMPUTATION INTERVAL PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
ROUTE	MANE	1.00	4.89	722.00	3.36	1.00	4.89	722.00	3.36

```
CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3766E-00 EXCESS=0.0000E+00 OUTFLOW=0.3759E+00 BASIN STORAGE=0.8828E-03 PERCENT ERROR=  -0.1

        ROUTE  MANE      1.00    24.43   726.00    3.35    1.00    24.43   726.00     3.35

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2166E+01 EXCESS=0.0000E+00 OUTFLOW=0.2163E+01 BASIN STORAGE=0.4010E-02 PERCENT ERROR=   0.0

        ROUTE  MANE      1.00    43.98   723.00    3.35    1.00    43.98   723.00     3.35

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4119E+01 EXCESS=0.0000E+00 OUTFLOW=0.4111E+01 BASIN STORAGE=0.1137E-01 PERCENT ERROR=  -0.1

        ROUTE  MANE      1.00   184.90   722.00    3.30    1.00   184.90   722.00     3.30

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1513E+02 EXCESS=0.0000E+00 OUTFLOW=0.1509E+02 BASIN STORAGE=0.3642E-01 PERCENT ERROR=   0.0

        ROUTE  MANE      1.00    25.39   726.00    3.02    1.00    25.39   726.00     3.02

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2069E+01 EXCESS=0.0000E+00 OUTFLOW=0.2063E+01 BASIN STORAGE=0.7009E-02 PERCENT ERROR=  -0.1

        ROUTE  MANE      1.00    46.39   731.00    3.01    1.00    46.39   731.00     3.01

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4770E+01 EXCESS=0.0000E+00 OUTFLOW=0.4759E+01 BASIN STORAGE=0.1543E-01 PERCENT ERROR=  -0.1

        ROUTE  MANE      1.00    45.65   729.00    3.01    1.00    45.65   729.00     3.01

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3686E+01 EXCESS=0.0000E+00 OUTFLOW=0.3664E+01 BASIN STORAGE=0.2628E-01 PERCENT ERROR=  -0.1


*** NORMAL END OF HEC-1 ***
```

```
1*******************************************                    *******************************************
*                                         *                    *                                         *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)     *                    *   U.S. ARMY CORPS OF ENGINEERS          *
*              MAY  1991                  *                    *   HYDROLOGIC ENGINEERING CENTER         *
*           VERSION 4.0.1E                *                    *        609 SECOND STREET                *
*                                         *                    *     DAVIS, CALIFORNIA 95616             *
*  RUN DATE  12/23/96  TIME  11:59:52     *                    *        (916) 551-1748                   *
*                                         *                    *                                         *
*******************************************                    *******************************************


                    X     X  XXXXXXX   XXXXX          X
                    X     X  X        X     X        XX
                    X     X  X        X               X
                    XXXXXXX  XXXX     X       XXXXX   X
                    X     X  X        X               X
                    X     X  X        X     X         X
                    X     X  XXXXXXX   XXXXX         XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM
```

```
1                                  HEC-1 INPUT                                              PAGE  1

       LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1        ID     Project:  Golden Queen - Soledad Mountain Project
          2        ID     Input Filename P:\17-650\hec1\hecrun4.ih1
          3        ID     100 YR, 24 HOUR STORM
   *** FREE ***
                   *DIAGRAM
          4        IT       1       0       0    1440       0       0
          5        IN      15       0       0
          6        IO       5       0

          7        KK     B1A
          8        XM    RUNOFF FROM  BASIN B101
          9        KO       0       0       0       0      21
         10        PB     3.6
         11        PC  0.0000  0.0030  0.0050  0.0080  0.0110  0.0130  0.0160  0.0190  0.0220  0.0250
         12        PC  0.0280  0.0310  0.0340  0.0370  0.0410  0.0440  0.0480  0.0510  0.0550  0.0580
         13        PC  0.0620  0.0660  0.0700  0.0740  0.0790  0.0830  0.0880  0.0920  0.0970  0.1020
         14        PC  0.1080  0.1130  0.1190  0.1250  0.1310  0.1380  0.1450  0.1530  0.1610  0.1700
         15        PC  0.1800  0.1900  0.2020  0.2160  0.2350  0.2570  0.2900  0.4000  0.6600  0.7100
         16        PC  0.7350  0.7560  0.7720  0.7880  0.8000  0.8100  0.8200  0.8300  0.8390  0.8470
         17        PC  0.8550  0.8620  0.8690  0.8750  0.8810  0.8870  0.8920  0.8980  0.9030  0.9080
         18        PC  0.9120  0.9170  0.9210  0.9260  0.9300  0.9340  0.9380  0.9420  0.9450  0.9490
         19        PC  0.9520  0.9560  0.9590  0.9630  0.9660  0.9690  0.9720  0.9750  0.9780  0.9810
         20        PC  0.9840  0.9870  0.9890  0.9920  0.9950  0.9970  1.0000
         21        BA  0.0347
         22        LS       0      98
         23        UD   0.060
                   *

         24        KK    ROUTEFROM NODE N1A TO N1B
```

```
 25          RD     532  0.0025    0.02       0    TRAP       0       1
             *

 26          KK     B1B
 27          BA  0.0668
 28          LS       0       98
 29          UD   0.058
             *

 30          KK COMBINEHYDROGRAPHS
 31          HC       2
             *

 32          KK   ROUTEFROM NODE N1B TO N1C
 33          RD     730  0.0025    0.02       0    TRAP       0       1
             *

 34          KK     B1C
 35          BA  0.0150
 36          LS       0       98
 37          UD   0.040
             *
1                                 HEC-1 INPUT                                         PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 38          KK COMBINEHYDROGRAPHS
 39          HC       2
             *

 40          KK   ROUTEFROM NODE N1C TO N1D
 41          RD    1230  0.0025    0.02       0    TRAP       0       1
             *

 42          KK     B1D
 43          BA  0.0456
 44          LS       0       97
 45          UD   0.070
             *

 46          KK     B1E
 47          BA  0.0677
 48          LS       0       98
 49          UD   0.116
             *

 50          KK COMBINEHYDROGRAPHS
 51          HC       3
             *

 52          KK   ROUTEFROM NODE N1E TO N1F
 53          RD    1415  0.0025    0.02       0    TRAP       0       1
             *

 54          KK     B1F
 55          BA  0.0677
 56          LS       0       96
 57          UD   0.065
             *

 58          KK COMBINEHYDROGRAPHS
 59          HC       2
             *

 60          KK     B3A
 61          BA  0.0102
```

```
 62          LS      0      95
 63          UD  0.125
             *

 64          KK    83B
 65          BA  0.0026
 66          LS      0      95
 67          UD  0.200
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 68          KK COMBINEHYDROGRAPHS
 69          HC      2
             *

 70          KK   ROUTEFROM NODE N3A TO N3B
 71          RD    1225  0.0025    0.02       0    TRAP       0       1
             *

 72          KK    83C
 73          BA  0.0101
 74          LS      0      95
 75          UD  0.434
             *

 76          KK    83D
 77          BA  0.0067
 78          LS      0      95
 79          UD  0.181
             *

 80          KK COMBINEHYDROGRAPHS
 81          HC      3
             *

 82          KK   ROUTEFROM NODE N3B TO N3C
 83          RD    1465  0.0025    0.02       0    TRAP       0       1
             *

 84          KK    83E
 85          BA  0.0142
 86          LS      0      98
 87          UD  0.121
             *

 88          KK COMBINEHYDROGRAPHS
 89          HC      2
             *

 90          KK    84A
 91          BA  0.0228
 92          LS      0      95
 93          UD  0.111
             *

 94          KK   ROUTEFROM NODE N4A TO N4B
 95          RD    3065  0.0025    0.02       0    TRAP       0       1
             *

 96          KK    84B
 97          BA  0.0319
 98          LS      0      95
 99          UD  0.871
             *
```

```
          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

           100          KK COMBINEHYDROGRAPHS
           101          HC        2
                        *
           102          ZZ
1
              SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE        (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.        (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   7           B1A
                 V
                 V
  24          ROUTE
                 .
                 .
  26             .          B1B
                 .            .
                 .            .
  30         COMBINE...........
                 V
                 V
  32          ROUTE
                 .
                 .
  34             .          B1C
                 .            .
                 .            .
  38         COMBINE...........
                 V
                 V
  40          ROUTE
                 .
                 .
  42             .          B1D
                 .            .
                 .            .            
  46             .            .          B1E
                 .            .            .
                 .            .            .
  50         COMBINE.......................
                 V
                 V
  52          ROUTE
                 .
                 .
  54             .          B1F
                 .            .
                 .            .
  58         COMBINE...........
                 .
                 .
  60             .          B3A
                 .            .
                 .            .
  64             .            .          B3B
                 .            .            .
                 .            .            .
  68             .         COMBINE.........
                 .            V
                 .            V
```

```
 70        .       ROUTE
           .         .
           .         .
 72        .         .         83C
           .         .          .
           .         .          .
 76        .         .          .         830
           .         .          .          .
           .         .          .          .
 80        .     COMBINE.......................
           .         V
           .         V
 82        .      ROUTE
           .         .
           .         .
 84        .         .         83E
           .         .          .
           .         .          .
 88        .     COMBINE...........
           .         .
           .         .
 90        .         .         84A
           .         .          V
           .         .          V
 94        .         .        ROUTE
           .         .          .
           .         .          .
 96        .         .          .         84B
           .         .          .          .
           .         .          .          .
100        .         .       COMBINE...........
```

```
(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
```

```
1****************************************                     ****************************************
*                                       *                     *                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                     *   U.S. ARMY CORPS OF ENGINEERS       *
*              MAY   1991               *                     *   HYDROLOGIC ENGINEERING CENTER      *
*          VERSION 4.0.1E               *                     *        609 SECOND STREET             *
*                                       *                     *      DAVIS, CALIFORNIA 95616         *
*  RUN DATE  12/23/96  TIME  11:59:52   *                     *        (916) 551-1748                *
*                                       *                     *                                      *
*****************************************                     ****************************************
```

```
                    Project:  Golden Queen - Soledad Mountain Project
                    Input Filename P:\17-650\hec1\hecrun4.ih1
                    100 YR, 24 HOUR STORM

   6 IO         OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

     IT         HYDROGRAPH TIME DATA
                       NMIN          1  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1   0  STARTING DATE
                      ITIME       0000  STARTING TIME
                         NQ       1440  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      1   0  ENDING DATE
                     NDTIME       2359  ENDING TIME
                      ICENT         19  CENTURY MARK

                COMPUTATION INTERVAL    0.02 HOURS
                     TOTAL TIME BASE   23.98 HOURS
```

```
ENGLISH UNITS
     DRAINAGE AREA          SQUARE MILES
     PRECIPITATION DEPTH    INCHES
     LENGTH, ELEVATION      FEET
     FLOW                   CUBIC FEET PER SECOND
     STORAGE VOLUME         ACRE-FEET
     SURFACE AREA           ACRES
     TEMPERATURE            DEGREES FAHRENHEIT
```

```
          **************
          *            *
   7 KK   *     B1A    *
          *            *
          **************

   9 KO        OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                    IPNCH          0  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2       1440  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT      0.017  TIME INTERVAL IN HOURS
```

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS. AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+										
DC-1A	HYDROGRAPH AT	B1A	$\boxed{83.}$	12.00	9.	3.	3.	0.03		
+	ROUTED TO	ROUTE	82.	12.00	9.	3.	3.	0.03		
+	HYDROGRAPH AT	B1B	160.	12.00	18.	6.	6.	0.07		
DC-1B	2 COMBINED AT	COMBINE	$\boxed{242.}$	12.00	27.	9.	9.	0.10		
+	ROUTED TO	ROUTE	240.	12.00	27.	9.	9.	0.10		
+	HYDROGRAPH AT	B1C	36.	12.00	4.	1.	1.	0.01		
DC-1C	2 COMBINED AT	COMBINE	$\boxed{276.}$	12.00	31.	11.	11.	0.12		
+	ROUTED TO	ROUTE	270.	12.02	31.	11.	11.	0.12		
+	HYDROGRAPH AT	B1D	107.	12.00	12.	4.	4.	0.05		

DC-1E	HYDROGRAPH AT	B1E	153.	12.02	18.	6.	6.	0.07
DC-1D	3 COMBINED AT	COMBINE	529.	12.02	62.	21.	21.	0.23
+	ROUTED TO	ROUTE	514.	12.05	62.	21.	21.	0.23
+	HYDROGRAPH AT	B1F	158.	12.00	18.	6.	6.	0.07
DC-1F	2 COMBINED AT	COMBINE	661.	12.02	79.	26.	26.	0.30
DC-3A	HYDROGRAPH AT	B3A	22.	12.03	3.	1.	1.	0.01
DC-3B	HYDROGRAPH AT	B3B	5.	12.08	1.	0.	0.	0.00
+	2 COMBINED AT	COMBINE	26.	12.03	3.	1.	1.	0.01
+	ROUTED TO	ROUTE	25	12.10	3.	1.	1.	0.01
DC-3C	HYDROGRAPH AT	B3C	13	12.30	3.	1.	1.	0.01
DC-3D	HYDROGRAPH AT	B3D	13.	12.07	2.	1.	1.	0.01
+	3 COMBINED AT	COMBINE	48.	12.10	7.	2.	2.	0.03
+	ROUTED TO	ROUTE	46.	12.18	7.	2.	2.	0.03
+	HYDROGRAPH AT	B3E	32.	12.03	4.	1.	1.	0.01
DC-3E	2 COMBINED AT	COMBINE	68.	12.08	11.	4.	4.	0.04
DC-4A	HYDROGRAPH AT	B4A	50.	12.02	6.	2.	2.	0.02
+	ROUTED TO	ROUTE	46.	12.15	6.	2.	2.	0.02
+	HYDROGRAPH AT	B4B	26.	12.73	8.	3.	3.	0.03
DC-4B	2 COMBINED AT	COMBINE	58.	12.17	14.	4.	4.	0.05

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

						INTERPOLATED TO COMPUTATION INTERVAL			
ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
ROUTE	MANE	1.00	82.37	720.00	3.36	1.00	82.37	720.00	3.36

```
CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6224E+01 EXCESS=0.0000E+00 OUTFLOW=0.6215E+01 BASIN STORAGE=0.7375E-02 PERCENT ERROR=   0.0

           ROUTE  MANE        1.00    239.90    720.00     3.36     1.00    239.90    720.00      3.36

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1820E+02 EXCESS=0.0000E+00 OUTFLOW=0.1817E+02 BASIN STORAGE=0.2232E-01 PERCENT ERROR=   0.0

           ROUTE  MANE        1.00    269.96    721.00     3.35     1.00    269.96    721.00      3.35

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2086E+02 EXCESS=0.0000E+00 OUTFLOW=0.2082E+02 BASIN STORAGE=0.3882E-01 PERCENT ERROR=   0.0

           ROUTE  MANE        1.00    513.76    723.00     3.33     1.00    513.76    723.00      3.33

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4085E+02 EXCESS=0.0000E+00 OUTFLOW=0.4078E+02 BASIN STORAGE=0.7136E-01 PERCENT ERROR=   0.0

           ROUTE  MANE        1.00     25.39    726.00     3.02     1.00     25.39    726.00      3.02

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2069E-01 EXCESS=0.0000E+00 OUTFLOW=0.2063E+01 BASIN STORAGE=0.7009E-02 PERCENT ERROR=  -0.1

           ROUTE  MANE        1.00     46.39    731.00     3.01     1.00     46.39    731.00      3.01

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4770E+01 EXCESS=0.0000E+00 OUTFLOW=0.4759E+01 BASIN STORAGE=0.1543E-01 PERCENT ERROR=  -0.1

           ROUTE  MANE        1.00     45.65    729.00     3.01     1.00     45.65    729.00      3.01

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3686E+01 EXCESS=0.0000E+00 OUTFLOW=0.3664E+01 BASIN STORAGE=0.2628E-01 PERCENT ERROR=  -0.1


*** NORMAL END OF HEC-1 ***
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GOLDEN QUEEN MINING COMPANY, INC.

SOLEDAD MOUNTAIN PROJECT
MOJAVE, KERN COUNTY, CALIFORNIA

DRAFT
ENVIRONMENTAL IMPACT REPORT /
ENVIRONMENTAL IMPACT STATEMENT

VOLUME 4
(Appendices IV through VII)

MAY 1997

COUNTY OF KERN
PLANNING DEPARTMENT
BAKERSFIELD, CALIFORNIA

BUREAU OF LAND MANAGEMENT
RIDGECREST RESOURCE AREA
RIDGECREST, CALIFORNIA

VOLUME 4 OF 6

Appendix IV

WZI INC.

GOLDEN QUEEN MINING COMPANY, INC.

MINERAL RESOURCE EVALUATION
OF ALTERNATIVE PROJECT SITES
SOLEDAD MOUNTAIN PROJECT
MOJAVE, CALIFORNIA

Submitted to:
Golden Queen Mining Company, Inc.
Post Office Box 820
Mojave, California 93502-0820

Submitted by:
WZI Inc.
4700 Stockdale Highway, Suite 120
Bakersfield, California 93309

March, 1997

Stephen G. Muir
Stephen G. Muir
Certified Engineering Geologist #1224
Expiration Date 06/30/97

07330010.285

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EXHIBITS

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1.0 EXECUTIVE SUMMARY

WZI Inc. (WZI) conducted a Mineral Resource Evaluation of Alternative Project Sites for the Golden Queen Mining Company, Inc. (Golden Queen) Soledad Mountain Project in eastern Kern County, California. The principal objective of this investigation was to determine if viable alternative project sites were present within a distance of 100 miles of the proposed Soledad Mountain Project.

A review of the geology, gold mineralization, and proposed mine development of the Soledad Mountain Project was conducted. Alternative project siting criteria developed from review of the Soledad Mountain Project geological and mineralization conditions included the following: (1) proximity to known past gold producing districts; (2) presence of potential ore-body host rock that consists of fractured Cretaceous granitic or Tertiary volcanic rock; (3) proximity to area(s) where a potential ore reserve or resource base of 40 to 50 million tons of gold bearing ore can be developed with grades of 0.01 to 0.05 oz/ton with stripping ratios of overburden to ore below 8:1 and gold recoverable with heap-leaching production methods; and (4) proximity to established utility and infrastructure support.

Database review of the regional geology was accomplished by review of existing surface geologic and geophysical maps from both published and unpublished sources. Mining districts with past gold production were reviewed from published literature and the individual districts described with respect to known geologic and gold mineralization trends that are similar to those at the proposed Soledad Mountain Project. Favorable areas where potential gold deposits similar to that of the Soledad Mountain Project were identified. A review of known exploration activities by private companies that have occurred during the past 10 years within the favorable areas was conducted by interviewing active and past active operators. Land status of the area of investigation was identified using existing federal and state maps that depict restricted areas where mineral development is prohibited. In addition, recent legislation by the U.S. Congress established the California Desert Protection Act, by which a large portion of the California desert area has been withdrawn from mineral exploration and/or production.

The investigation concluded:

- Forty mining districts were found to exist within the area of investigation of the alternative project sites where gold mineralization in commercial quantities was determined to have existed;
- A total of 14 of the alternate project site mining districts evaluated are located either within or immediately adjacent to state of California or federal lands that have been designated as Primitive or Wilderness Areas and are not available for mineral exploration or development;
- An additional three sites are located within or immediately adjacent to federal military lands and are not available for mineral exploration or development;
- Alternate project sites that represent the best potential alternative sites are: (1) the operating Yellow Aster Mine owned by Glamis Gold Ltd. located in Kern and San Bernardino Counties and within the Randsburg District; (2) the Zenda Mine Project owned by Claim Staker Resources, Inc. located in Kern County and within the Loraine District; and (3) the Big Horn Mine Project, owned by Siskon Gold, Inc., located in Los Angeles County and within the Mount Baldy District.

The three alternate sites represent the best potential alternate project site options available to the Soledad Mountain Project within the area of investigation. These three sites have reported potential ore reserves of less than 25 percent of the projected ore resources of the Golden Queen Soledad Mountain Project (2.3 million ounces of gold equivalent). In addition, in each of these sites, a mining company has already established controlling interest in the identified mining properties.

2.0 INTRODUCTION

2.1 Project Background

Golden Queen Mining Company, Inc., has proposed the development of the Soledad Mountain Project. The proposed project consists of an open pit precious metals (gold and silver) mining and heap leach processing facility to be developed at Soledad Mountain, approximately five miles southwest of the unincorporated town of Mojave in Kern County, California (Exhibit 1).

The project area consists of approximately 1,600 acres, of which 1,165 acres are privately owned land and 435 acres are unpatented mining claims on public lands administered by the U.S. Bureau of Land Management, Ridgecrest Resource Area Office of the California Desert District (BLM). The Kern County Planning Department is the lead agency for compliance with the California Environmental Quality Act (CEQA) and will oversee Golden Queen's implementation of and compliance with the Surface Mining and Reclamation Act of 1975 (SMARA), which is applicable to all mining operations within the State of California. BLM is the lead agency for compliance with the National Environmental Policy Act (NEPA) and will oversee compliance with the standards and procedures in the BLM regulations for surface mining of public land under the general mining law.

The project is located within an unincorporated area of eastern Kern County and is on and around Soledad Mountain, west of State Route 14 and south of Silver Queen Road. The project area includes portions of Sections 5, 6, 7 and 8 in Township 10 North, Range 12 West and Sections 1 and 12 in Township 10 North, Range 13 West, San Bernardino Base and Meridian (Exhibit 1).

The objective of the Soledad Mountain Project is to develop an open pit precious metals (gold and silver) mine and heap leach processing operation with the potential for the production of aggregate and construction materials. Up to 60 million tons of ore and 230 million tons of overburden materials will be mined. The anticipated life of the project is up to 15 years with employment expected for approximately 230 people. Processing operations will continue for approximately two years after the cessation of mining, at which time the project will begin closure and reclamation.

The closest electrical power lines that are capable of providing power requirements to the Soledad Mountain Project are located at the northeast corner of the project site. A new substation will be constructed on the project site with overhead and underground distribution network to serve the various operations on the project site.

The Soledad Mountain Project is estimated to require water at the average rate of 750 gallons per minute. This water will be supplied from groundwater that will be pumped from three water supply wells. This water will be used for mining and leaching operations and dust control.

Project operations will be followed by closure and reclamation of the site. The objectives of reclamation are: (1) to assure that adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a level consistent with current use; (2) to encourage the production and conservation of minerals while giving consideration to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment; and (3) to assure that residual hazards to the public health and safety are eliminated.

A total of 930 acres will be disturbed by the project, approximately 215 of which have been disturbed as a result of prior activities on the site. Except for the open pit mine, which covers 265 acres, and 20 acres of process area highwall and side slope, all disturbed acreage will be subject to reclamation and/or stabilization processes.

As part of the CEQA requirements for alternative locations, WZI conducted an Alternative Site Location Investigation. As a consequence, WZI staff reviewed regional geological and mining data to determine the possible locations for an alternative project site.

2.2 Area of Investigation

The area of investigation for data collection of the alternative project site is depicted on Exhibit 2. All geological and mining data publicly available was reviewed to a distance of 75 or 100 miles from the proposed Soledad Project location near Mojave. The investigation also included evaluation of alternative sites in mining districts located in portions of Los Angeles, Ventura, Inyo, San Bernardino, Riverside and Kern Counties.

2.3 Database Utilized

The database utilized to conduct the investigation included:

- All publicly accessible and pertinent geological and geophysical data for this portion of California. U.S. Geological Survey, U.S. Bureau of Land Management, U.S. Forest Service, U.S. Bureau of Mines and California Division of Mines and Geology reports and maps were reviewed;
- Proprietary geological and geophysical data owned by individuals and companies that was made available to WZI staff to conduct the investigation; and
- Discussions with active and previously active mineral exploration company personnel familiar with the geology and gold deposits of the area of investigation was also conducted.

2.4 Limitations

WZI has prepared this investigation in accordance with the accepted standard of care which exists in California at the time the investigation was conducted. It should be recognized that the evaluation of published and unpublished technical reports and data from which conclusions of this investigation were based, were accepted as being technically correct.

3.0 INVESTIGATION PROCEDURES

3.1 Geology and Gold Mineralization at the Soledad Mountain Project

Regional Geological Background

The tectonic history of the western United States is complex, with subduction-related orogenic events occurring from the Late Cretaceous Period (74.5 million years ago) to the middle Miocene time (16 million years ago) (Mabey and others, 1978). Principal magmatic arcs present in the area of investigation include the Sierra Nevada Mountain Range and the San Gabriel- San Bernardino Mountain Ranges (Exhibit 2). These ranges are relatively narrow, with well-defined zones of calc-alkaline volcanic and plutonic activity that was inferred to have occurred above subduction zones. The deposits of base and precious metals within the area of investigation appear to be closely associated with these orogenic events.

A possible source of the Tertiary-age calc-alkaline volcanic rocks at Soledad Mountain is the partial melting of oceanic and crustal material as it descended into the subduction zone (Coney, 1978). The fracture pattern within the deep crystalline basement rock is inferred by regional magnetic and gravity data (Mabey and others, 1978). These fractures may have developed in response to easterly-directed compressional forces related to subduction of the oceanic plate and may have acted as preferred pathways above which subsequent volcanic vents or centers occurred.

Miocene volcanic flows and volcaniclastic sediments at Soledad Mountain rest unconformably on Late Cretaceous quartz monzonite of the Sierra Nevada batholith (Jennings, 1977).

Geology of the Soledad Mountain Project

Soledad Mountain is a moderately eroded, complex-shaped silicic volcanic center that is postulated to have formed during middle to late Miocene time (16.9 to 21.5 million years) (Troxel and Morton, 1962; Perez, 1978). Soledad Mountain can be interpreted as being the remnant portion of a caldera or irregular-shaped volcanic center. Volcanic rock composed of felsic flows, tuffs, and breccias with rock types ranging in composition from quartz latite to rhyolite are present in the Soledad Mountain Project area (Dibblee, 1967).

The oldest rocks at Soledad Mountain are the Late Cretaceous quartz monzonite. Overlying the quartz monzonite are the Tertiary volcanics. The oldest Tertiary volcanic unit is the early Miocene age quartz latite flows which represent the oldest eruptive sequence. These flows are postulated to have originated from at least three separate vent centers and form a broad platform that underlies a large portion of the Soledad Mountain and immediate surrounding area (Perez, 1978).

Overlying the quartz latite flows is a middle unit comprised of pyroclastic units. This middle pyroclastic flow unit is a thick, near-vent accumulation of coarse pyroclastic debris, thin bedded distal airfall tuff, and pyroclastic flows that rests on both the underlying quartz latite flows and quartz monzonite.

Overlying the quartz latite flows and the middle pyroclastic units is a sequence of flow-banded rhyolite. This flow-banded rhyolite is inferred to have had a single vent source. The rhyolite is restricted mainly to outcrops along the northern edge of the complex.

Rocks of the upper pyroclastic unit (middle Miocene) lie unconformably on the flow-banded rhyolite. This unit represents a near-vent accumulation of interbedded sequences of poorly sorted chaotic breccias and moderately sorted layers of coarse ash and lapilli tuffs.

The youngest and most widespread of the volcanic units is the porphyritic rhyolite. The largest exposure of this unit is present west and southeast of the Soledad Mountain summit, where it forms three moderately eroded and coalescing lava domes. This unit was emplaced through, and locally overlies, all other volcanic units of the complex.

The other gold-producing mines located in the district have similar lithologic and volcanogenic characteristics to those of Soledad Mountain (Clark, 1970). Common features include: epithermal hot spring-style of mineralization; host rocks consisting of calc-alkaline volcanics; and structurally controlled alteration and mineralization.

The Standard Hill Mine is located northeast of Soledad Mountain. The geology at Standard Hill Mine consists of high-angle faults that contain quartz veins that cross-cut quartz monzonite and quartz latite volcanics (Gardner, 1954). The veins strike north to northwest with shallow dip angles to the east and northeast, respectively.

The Tropico Mine is located approximately seven miles to the south of Soledad Mountain. The geology at the Tropico Mine has quartz monzonite that is overlain by quartz latite, flow-banded rhyolites and rhyolite porphyry similar to the volcanics of the Soledad Mountain (Gardner, 1954). The gold-bearing veins at the Tropico Mine strike east-west and dip 65 to 70 degrees to the south. Quartz veins fill pre-mineral faults, with movement continuing during and after mineralization (Clark, 1970; Clark, 1980).

The Cactus Mine, located approximately five miles west of Soledad Mountain consists of quartz latite to rhyolite flows resting unconformably on quartz monzonite. The strike pattern of the veins varies from southeast to northeast. Mineralization is associated with quartz-filled faults, fault breccia and zones of solidification and argillization of the wall rock (Clark, 1970).

Gold Mineralization

The gold mines within the Mojave-Rosamond mining district appear to line the rim of a collapsed volcanic center. The center of the volcanic center is postulated to have been located southeast of Soledad Mountain, north of the Tropico Mine, and southeast of the

Cactus Mine. Volcanism waned approximately 16 million years ago at Soledad Mountain and allowed meteoric waters to flow back into the volcanic complex and mix with upward migrating magmatic fluids. Magma chamber(s) at depth are inferred to have supplied a continuing heat source and migrating fluids at depth formed geothermal convection cells with cooler, near-surface meteoric water. Precious metal-bearing solutions probably migrated upward along the pre-existing fault and fracture surfaces until physical and chemical changes encountered near the ground surface caused precipitation of metals into the host rocks (Berger and Eimon, 1981; Buchanan, 1981).

Gold mineralization has occurred at the Soledad Mountain area as a series of epithermal veins, filling faults and shear zones (Perez, 1978). A series of these veins are present at Soledad Mountain and are exposed at the surface within a northwest-trending belt approximately 4,000 feet wide and 6,500 feet long. Vein widths vary from three feet to 50 feet and are consistent along strike and down dip. Some of the veins have been mined to a vertical depth of 1,000 feet below ground surface.

The lateral extent of mineralization of the volcanic units at Soledad Mountain is variable (Perez, 1978). Mineralization of the volcanic flow units of quartz latite, flow-banded rhyolite and porphyritic rhyolite is reported to be generally confined to faults and fault breccias and shows a weak potential for mineralization into the wall rock. Where mineralized faults and veins cross-cut the middle and upper pyroclastic units, a wider halo of mineralization into the host rock occurs. This halo indicates a possible leaking of hydrothermal solution into the more permeable and porous tuffaceous units of the Soledad Mountain volcanic complex.

Published mining production records indicate the Mojave-Rosamond District has produced approximately 1,046,000 ounces of gold or gold equivalent from over two dozen mines (Clark, 1970).

The largest known producers in the Mojave-Rosamond District included:

Mine	Gold Produced
Golden Queen:	483,792 ounces
Cactus Gold:	241,896 ounces
Standard Group:	169,327 ounces
Tropico:	114,000 ounces

Much of the past gold produced at the Mojave-Rosamond District was from underground mines that typically had gold ore concentrations that ranged from 0.25 to 0.5 oz/ton (Clark, 1970). During the 1980's, heap leach projects were started by several mining companies to rework old mine tailings or to conduct open-pit mining operations. These operations were conducted over some of the older underground mines and are similar to many projects across the western United States (Bonham, 1981; Silberman, 1982). These projects included the Standard Hill Project conducted by Billiton Minerals, USA and the Cactus Gold Project conducted by Cactus Gold Mining Company.

Numerous geological and geochemical data were utilized by Golden Queen staff to construct cross-section diagrams of the Soledad Mountain Project. These data included geochemical analysis of drill hole, subsurface workings, and surface rock samples. These data indicate that approximately 60 to 70 million tons of ore with a gold-equivalent concentration of 0.030 oz/ton and a cut-off grade of 0.008 oz/ton remain as a proven reserve and resource base for gold at the Soledad Mountain Project. With a heap leach recovery of 80 percent of mined ore placed on the heap leach pad, a total of approximately 1.45 million ounces of gold are estimated to be recoverable at the Soledad Mountain Project.

3.2 Gold Mining Districts in Area of Investigation

Published reports and publicly available literature describing the known gold districts that are present within the Area of Investigation were reviewed. The geology, mineralization systems, known past producing mines and their gold production, and land status were evaluated for each of the districts investigated. A discussion of each district was made that outlined known recent exploration activity.

Each gold mining district is plotted on Exhibit 2. There are four distinct geomorphic provinces within the area of investigation: Sierra Nevada Province; Basin and Range Province; Mojave Desert Province; and Transverse Range Province. Each of these provinces has different geologic structure elements and stratigraphy. Each of the provinces has mineralized areas within it where base and precious metals have been produced. A tabulation of significant historical events of gold mining in California is presented as Table 1.

Production records for the mining districts are generally incomplete or nonexistent. Many of the older references would record only the dollar amount of gold produced and not volume, which would have been reported in ounces. WZI staff utilized the old price standard for an ounce of gold of $20.67/ounce to convert the reported dollar amount of production to ounces for production reported until 1932. Between 1932 and 1968, the conversion price of gold was estimated to be $35.00/ounce. No price conversion was required after 1968 for reported gold production because most production was reported in ounces.

Many of the mining districts within the area of investigation were indicated to have produced gold from lode or placer mines but had no dollar amounts or volumes of gold reported. Where no specific gold production was identified, WZI staff assigned an inferred production base for volume of gold produced in ounces. This inference of gold produced from these districts is based on geological similarities and known gold production from other districts with similar geology and mineralization. WZI staff also estimated remaining reserve or resource potential available for several of the mining districts where past exploratory drilling data was made available for review.

A brief summary of each mining district is presented within Table 2. The mines within the four provinces are described below:

3.2.1 Sierra Nevada Geomorphic Province

The Sierra Nevada mountain range is the main source of the state of California past gold production and contains the greatest number of small-size mining districts of all the provinces. The main rock type of the Sierra Nevada is a large batholith of Mesozoic granodiorite and related rocks that have intruded into metamorphic rocks of Paleozoic and Mesozoic age (Jennings, 1977). The large batholith is approximately 400 miles long in the north-south dimension and 85 miles wide in the east-west dimension. The Mariposa Formation (Upper Jurassic) and the Kernville Series (Jurassic or older) of the southern Sierra Nevada contain slates, schists, phyllites, and quartzites which are present in many of the mining districts (Clark, 1970).

In addition to the main Sierra Nevada granodiorite batholith, there are numerous smaller intrusions of basic and ultra-basic rocks, many of which are serpentinized (Jennings, 1977). The serpentine bodies apparently have been structurally important in the localization of gold bearing deposits in some of the mining districts and often are parallel to or occur within the belts of gold mineralization (Clark, 1970). Also, there are numerous dioritic and aplitic dikes that are closely associated with gold bearing veins.

3.2.1.1 Clear Creek Mining District (Kern County, Exhibit 2, Location #1)

<u>Location and History</u>

The Clear Creek or Havilah District is located in east-central Kern County, about 26 miles east-northeast of Bakersfield and five miles south of Bodfish. It is located in an large area that includes Red Mountain and Walker Basin. This district is also considered a tungsten district (Dibblee and Chesterman, 1958).

Gold was discovered in Clear Creek in 1863 or 1864 and by 1865 the town of Havilah was established (Brown, 1916). Mining activity in the area declined during the 1880's, but has been reported to have been intermittently active for many years (Tucker and Sampson, 1933).

Geology

The Clear Creek District and surrounding area is underlain by Mesozoic age quartz diorite with roof pendants of Paleozoic metasediments present in the north and south portions of the district (Jennings, 1977). An intrusive body of gabbro is present to the northeast. The gold deposits are reported to be mostly confined to the quartz diorite intrusive body located west of Havilah and in the Walker Basin (Troxel and Morton, 1962). These ore bodies reportedly consist of quartz veins up to six feet thick and contain free gold and varying amounts of sulfides (Tucker and Sampson, 1933).

Mines and Gold Production

Mines located in the Clear Creek District include: Friday; Jackpot; Joe Walker ($600,000 or more of gold produced); Porter; Rand group ($125,000 of reported gold production); Rochfort; Southern Cross; Washington. It is estimated that approximately 35,000 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred. This area is within lands administered by the U.S. Forest Service and may have significant mineral exploration and/or development restrictions.

3.2.1.2 Cove Mining District (Kern County, Exhibit 2, Location #2)

Location and History

The Cove District is located in the northeastern portion of Kern County, between the towns of Kernville and Isabella, on the west side of the Lake Isabella Reservoir. The upper Kern River here was reportedly mined for gold in placer occurrences during the 1850's (Miller and Webb, 1940). The Big Blue vein was discovered in 1860 (Crawford, 1893), and a significant period of mining activity followed during the 1870's and early 1880's. The mines were worked intermittently from the 1880's through the 1930's with the Big Blue group reported as having been operated on a large scale from 1934 until 1943 (Troxel and Morton, 1962). Since 1943 there has been only minor activity reported in the district.

Geology

The Cove Mining District is underlain primarily by Mesozoic granodiorite (Jennings, 1977). East and south of the district outcrops of schist, phylite, quartzite and marble of the pre-Cretaceous Kernville Series are present. Aplite dikes are reportedly often associated with the gold-bearing veins (Clark, 1970).

The ore deposits consist of extensive vein systems, with some being reported as much as 150 feet wide. These vein systems are reported to occur within shear zones in the granodiorite (Prout, 1940). The ore reportedly consists of quartz with finely disseminated free gold, arsenopyrite, pyrite, chalcopyrite and galena. The milling ore grade was reported as averaging 0.1 to 0.33 oz/ton of gold with some localized higher grade streaks (Troxel and Morton, 1962). The veins have been reportedly mined to depths of about 500 feet. There are two main vein systems: the Big Blue-Sumner and the Lady Belle groups.

Mines and Gold Production

The mines in the Cove Mining District included the Big Blue Group, the Big Blue-Sumner Group and the Lady Belle Group. The district has an estimated past gold production valued at $8 million. It is estimated that approximately 387,034 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred. This area is within lands administered by the U.S. Forest Service and may have significant mineral exploration and/or development restrictions.

3.2.1.3 Erskine Creek District (Kern County, Exhibit 2, Location #3)

Location and History

The Erskine Creek District is located in Kern County, approximately 38 miles northeast of Bakersfield and south of Lake Isabella Reservoir. The district forms an area approximately five miles long and two miles wide and also includes the mining area known as the Pioneer District. Antimony and gold deposits were productive in the early 1890's and intermittently afterward (Tucker and Sampson, 1933).

Geology

Two northwest-trending roof pendants of pre-Cretaceous metamorphic rocks are surrounded by Mesozoic granitic rock in this district (Jennings, 1977). The ore deposits reportedly consist of quartz veins containing free gold and varying amounts of sulfides. Gold and varying amounts of silver, antimony, tungsten, copper and uranium have been produced from the Erskine Creek District (Troxel and Morton, 1962).

Mines and Gold Production

The principal sources of gold in the district has been reported to have been the Glen Olive Mine, which reportedly yielded $500,000 of gold and the Iconoclast Mine (Tucker and Sampson, 1933). Other properties include the Golden Bell, Laurel, Valley View, Faust and King Solomon Mines (Clark, 1970). It is estimated this district has produced 24,189 ounces of gold.

Recent Exploration Activity

No recent exploration activity is known to have occurred. This area is adjacent to lands administered by the U.S. Forest Service and may have significant mineral exploration and/or development restrictions.

3.2.1.4 Greenhorn Mountains District (Kern County, Exhibit 2, Location #4)

Location and History

The Greenhorn Mountains District is located in Kern County about 28 miles northeast of Bakersfield. The initial reported discovery of gold was made in Greenhorn Creek in 1851 by a member of the John Fremont expedition (Brown, 1916). A gold rush soon followed and the town of Petersburg was established. Gold mining activity declined before 1890. Since 1890 there has been minor prospecting reported in the district. Most of the gold output has been from lode deposits (Brown, 1916).

Geology

The Greenhorn Mountains District is underlain by quartz diorite (Troxel and Morton, 1962). Several roof pendants that are comprised of Mesozoic or Paleozoic age metamorphic rocks and pegmatite dikes are also present (Jennings, 1977).

Mines and Gold Production

The chief placer gold deposits were in Greenhorn, Fremont, Bradshaw, and Black Gulch Creeks (Brown, 1916). Numerous small, poorly-mineralized quartz veins are present in the district. Most of these quartz veins are located a few miles east of David Guard Station (Troxel and Morton, 1962). The gold is reported to be present in a free state and there is very little sulfide mineralization. An unknown volume of gold was produced from this district. Based on similar geological environments, it is estimated that approximately 1,000 to 5,000 ounces of gold was produced from the district.

Recent Exploration Activity

No recent exploration activity is known to have occurred. This area is adjacent to lands administered by the U.S. Forest Service and may have significant mineral exploration and/or development restrictions.

3.2.1.5 Jawbone Canyon District (Kern County, Exhibit 2, Location #5)

Location and History

The Jawbone Canyon district encompasses an area between Emerald Mountain and the El Paso Mountains, north of the Garlock Fault. The district is centered about 14 miles north of the town of Mojave. Placer gold deposits were reportedly discovered in this district in approximately 1900 (Troxel and Morton, 1962). Lode gold deposits were reportedly developed at several mines including the Skyline and San Antonio during the late 1930's (Tucker and Sampson, 1940).

Geology

The Jawbone Canyon-Butterbread Peak area is underlain by Cretaceous granitic rocks containing minor roof pendants of Mesozoic metasediments (Jennings, 1977). Tertiary sediments and interbedded volcanic rocks unconformably overlie the granitic rocks in places. These sediments, as well as the granitic rocks, are intruded by Tertiary age rhyolite dikes and plugs that are believed to be of the same age as those in the nearby Mojave District (Miocene) (Troxel and Morton, 1962). A variety of mineral deposits occur in the district, including gold, antimony, clay and mercury. Most of the gold occurrences worked in the past consisted of west- to northwest-trending narrow, gold-bearing quartz stringers cutting the Cretaceous quartz monzonite. Many of the quartz stringers are often associated with rhyolite dikes. At the Hub Mine, however, a gold-bearing quartz vein cuts altered rhyolite on the west side of the district. In addition, some of the rhyolite bodies are widely altered to clay minerals, and cinnabar has reportedly been recognized in at least one rhyolite body (Troxel and Norton, 1962).

Mines and Gold Produced

The mines that were reported to be in this district included: Hub, Skyline, and San Antonio. No published gold production value or volume was reported for this district. It is estimated that the total volume of gold produced from this district was 1,000 to 5,000 ounces based on similar geological environments and known past production from other mining districts.

Recent Exploration Activity

It appears that some limited exploration for precious metals has occurred in this district in the past ten years. No announced discovery of an ore body has been made within this district.

3.2.1.6 Kern River District (Kern County, Exhibit 2, Location #6)

Location and History

The Kern River District is located in the upper Kern River, between Bakersfield and Bodfish. This district was the scene of a rush soon after the discovery of gold at

Greenhorn Creek in 1851 (Tucker and Sampson, 1993). Not much is known about the early deposits but the majority are believed to have been worked out in a short time. Many lode-gold prospects are in the area, but the only one of any consequence is the Gem Mine near Democrat Springs.

Geology

The Kern River District is underlain by Mesozoic quartz diorite and associated aplitic and pegmatitic dikes, most of which trend north (Miller and Webb, 1940). Small roof pendants of pre-Cretaceous metasediments are present within the granitic rocks. Moderate foliation is common in the granitic rocks, especially near contacts with the roof pendants (Troxel and Morton, 1962).

Mines and Gold Produced

The most important placer mine in the Kern River Canyon District was the Greenhorn Caves Mine in Greenhorn Creek. This mine reported gold placer production valued at $60,000 (Tucker and Sampson, 1933). The Gem Mine was a lode gold mine that was located approximately one mile southwest of Democrat Springs. Reported production from the Gem Mine was valued at $30,000 (Tucker and Sampson, 1933).

Past gold production in the district is estimated at approximately 1,000 to 5,000 ounces, based on similar geological environments and known past production from other mining districts.

Recent Exploration Activity

No recent exploration activity is known to have occurred.

3.2.1.7 Keyesville District (Kern County, Exhibit 2, Location #7)

Location and History

This district is in the southern Sierra Nevada in Kern County, about 32 miles northeast of Bakersfield and two miles southwest of Isabella Dam. Gold was discovered here in 1852 and for a time this was the largest community in Kern County. The chief periods of mining were the 1850's, 1860's, 1890's and 1909-15 (Tucker and Sampson, 1933). The area was reportedly prospected during the 1930's, but little has been done here since, and Keyesville has become a ghost town (Troxel and Morton, 1962).

Geology

The Keyesville District is underlain by Mesozoic age quartz diorite (Jennings, 1977). The gold deposits occur in a northeast-trending belt about three miles long (Tucker, 1933). The veins consist of narrow quartz stringers with fault gouge that contain free gold and small amounts of pyrite, arsenopyrite and pyrrhotite (Tucker and Sampson, 1933). There are some placer deposits, including one of possible Pleistocene age (Troxel and Morton, 1962).

Mines and Gold Production

The mines that have reported gold production in the district include: Bright Spot; High Grade; Homestake; Keyes ($450,000); Keyesville; Keyesville Placer; Mammoth, ($500,000); Mooncastle; Nephi; Nob Hill; Opportunity; Sunrise; Virginia; Will Jean. Approximately 45,960 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred.

3.2.1.8 Long Tom District (Kern County, Exhibit 2, Location #8)

Location and History

The Long Tom District is located in the southern Sierra Nevada in central Kern County. The district is approximately 23 miles northeast of Bakersfield and 10 miles south of Woody. The lode occurrences of gold in the district were discovered in 1860 by prospectors looking for the source of placer gold in nearby creeks (Brown, 1916; Tucker, 1923).

Geology

The Long Tom District is underlain by quartz diorite with small gabbroic inclusions (Jennings, 1977). A number of fracture zones contain small, gold-bearing quartz stringers with minor amounts of sulfides (Brown, 1916). The deposits reportedly do not extend to depths of more than a few hundred feet (Troxel and Morton, 1962).

Mines and Gold Production

The principal mine in the District was the Long Tom Mine. This mine was reported as having considerable activity during the 1880's and again from 1925 to 1939 (Troxel and Morton, 1962). The Long Tom Mine had an estimated total output of gold valued at $800,000 to $900,000 (Clark, 1970). Approximately 43,541 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred.

3.2.1.9 Loraine District (Kern County, Exhibit 2, Location #9)

Location and History

The Loraine District, also known as the Amalie District, is located in the southern Sierra Nevada in central Kern County near the vicinity of the town of Paris-Loraine. The district is about 35 miles east of Bakersfield and 12 miles north of Tehachapi and was first prospected in the 1850's (Crawford, 1894; Brown, 1916). The principal period of mining activity was from 1894 until around 1912 (Tucker and Sampson, 1933). The district was active again in the 1920's and 1930's, and there has been intermittent prospecting since.

Geology

The Loraine District is underlain by a large roof pendant of slate and mica schist of the Paleozoic age Kernville Series within the rock of the Sierra Nevada batholith comprised of quartz diorite and granodiorite (Jennings, 1977). There are a number of quartz veins, ranging from one to 10 feet in thickness, which reportedly contain free gold and abundant sulfides (Tucker and Sampson, 1933). The veins reportedly occur in both the metamorphic and granitic rocks.

Milling-grade ore reportedly commonly averaged more than 0.5 oz/ton of gold and 2.0 oz/ton of silver per ton (Troxel and Morton, 1962). Several ore shoots reportedly had stope lengths of up to 300 feet, and several veins were mined to depths of 600 feet or more.

Mines and Gold Produced

The mines located in the Loraine District included: Amalie,($600,000); Barbarossa; Cowboy ($600,000); Deerhunter; Ella; Ferris; Golden Cross; Golden Peak; New Deal; Zenda, (34,000 ounces of gold or more). Approximately 92,055 ounces of gold were produced from this district.

Recent Exploration Activity

Exploration for precious metals has occurred in this district during the past ten years. Companies reported to have been active in the Loraine District have included: Billliton Minerals USA, Equinox Exploration and Claim Staker Resources. The Zenda Mine Project has been reportedly evaluated by Claim Staker Resources and gold ore reserve /resource estimates of approximately 920,000 tons of ore at an average grade of 0.057 oz/ton are present. This volume of ore would represent approximately 100,000 ounces of recoverable gold.

3.2.1.10 Piute Mountains District (Kern County, Exhibit 2, Location #10)

Location and History

The Piute Mountains are located in the southern Sierra Nevada mountain range and in the east-central portion of Kern County near Claraville, about 14 miles southeast of Bodfish. Gold was probably discovered here during the 1850's, but the principal periods of mining were 1870 to 1900 and during the early 1930's and early 1940's (Tucker and Sampson, 1933).

Geology

The Piute Mountains District is underlain primarily by Mesozoic granitic rocks (Jennings, 1977). In the northwest portion of the district, a roof pendant of Mesozoic metasediments crop out. Most of the gold deposits are confined to a two-mile-wide belt that extends northwest through the Claraville area in granitic rock and then north in the metamorphic rocks (Troxel and Morton, 1962). The deposits consist primarily of gold-quartz veins in shear zones. Some sulfides, in places, are reportedly present. Milling ore reportedly averaged about 0.5 oz/ton of gold (Clark, 1970).

Mines and Gold Production

The mines that produced gold in the Piute Mountains District included: Amy, Blue Jay, Bright Star ($600,000), Dearborn, Donnie, French, Gold Standard, Gwynne ($770,000), Henry Ford, Hilltop, Jeannette, Jeanette-Grant, Jerry, Little Joe, Lone Star, Mary Ellen, Retreat, Shellenberger, Simon, Surprise (Troxel and Morton, 1962). Approximately 66,279 ounces of gold have been produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred.

3.2.1.11 Tehachapi District (Kern County, Exhibit 2, Location #11)

Location and History

The Tehachapi District is located in the Tehachapi Mountains, about four miles south of Tehachapi within the east-central portion of Kern County. Most of the gold production in this district came from the Pine Tree Mine which was a lode mine. This mine was reportedly active from 1876 to 1907.

Geology

The Tehachapi District is largely underlain by Cretaceous granitic rocks that are part of the southern end of the Sierra Nevada batholith. Preserved within these plutonic rocks are large roof pendants of probable Mesozoic age metasediments that are composed largely of limestones and quartzites (Jennings, 1977; Dibblee and Louke, 1970). Irregular bodies of Late Tertiary rhyolite locally intrude the granitic rocks (Troxel and Morton, 1962). The district is largely known for its production of lime and portland cement from the Paleozoic age roof pendants containing limestone. Some gold has also been produced in the district from shallow dipping, gold-bearing quartz veins cutting the granitic rocks (Clark, 1970).

Mines and Gold Produced

The largest gold-producing mine in the district was the Pine Tree Mine. Clark (1970) reported that over $250,000 in gold was mined from shallow dipping (20° to 40°) quartz veins in granitic rocks from the Pine Tree Mine. Maximum width of quartz veins is reported to be about three feet, however, hanging wall and footwall of most veins are also brecciated. Before 1910, mine workings consisted of at least five adits ranging in length from 80 to about 800 feet. Several thousand feet of drifts and stoops extended from these adits. Lower adit portals have been covered by dumps from upper portals. Gold was reportedly free milling (Troxel and Morton, 1962). Approximately 12,094 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred.

3.2.1.12 White River Mining District (Kern County, Exhibit 2, Location #12)

Location and History

The White River District is located in both southern Tulare and northern Kern Counties, approximately 25 miles southeast of Porterville. Gold was discovered here in 1853. The town was originally known as Tailholt, but the name was changed to White River in 1870 (Laizure, 1923). Mining continued until around 1906, and there has been minor activity since. The district was estimated to have yielded a total of $750,000 worth of gold by 1914 (Tucker, 1919).

Geology

The White River District is underlain by Mesozoic granodiorite and small intrusive bodies of gabbro and other basic rocks (Troxel and Morton, 1962). Small amounts of Paleozoic and/or Mesozoic schist and slate along with a few limestone roof pendants are present the west (Jennings, 1977). A series of west-northwest-trending parallel quartz veins occur in shear zones in the granodiorite. The ore reportedly contained free gold and small amounts of pyrite (Troxel and Morton, 1962).

Mines and Gold Production

The mines located in the White River District include Bald Mountain ($200,000 to $300,000); Eclipse No. 2; Josephine; Last Chance; and Stencil. Approximately 36,284 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred.

3.3.2 Basin and Range Province Mining Districts

The Basin and Range Province of the Area of Investigation occupies Inyo, San Bernardino, and portions of Kern Counties. The mountain ranges in this province lie east of the Sierra Nevada Mountain Range and north of the Garlock Fault (Exhibit 2). The Basin and Range Province is a region of roughly parallel mountain ranges alternating with basins or low-areas that are controlled by fault block structures. The province is underlain by granitic, sedimentary rocks of Precambrian, Paleozoic and Mesozoic ages and in places by Cenozoic sediments and volcanic rocks (Jennings, 1977). Gold is present as epithermal deposits in silicified and brecciated zones in volcanic rocks or as mesothermal gold-quartz veins in older metamorphic or granitic rocks (Clark. 1970).

3.2.2.1 Argus District (Inyo County, Exhibit 2, Location #13)

Location and History

The Argus District is located in southern Inyo County within the Argus Range about 10 miles north of Trona. This district has also been known as the Kelley or Sherman Mining District. The mines here apparently were first worked in the 1890's, although gold may have been discovered earlier (Norman and Stewart, 1951). Considerable mining activity occurred during the early 1900's and again in the 1930's, followed by intermittent prospecting and development work until the present time (Clark, 1970).

Geology

The Argus District is underlain by crystalline rocks that range in composition from quartz monzonite to gabbro (Jennings, 1977; Norman and Stewart, 1951). The ore deposits reportedly occur either in quartz veins or in zones consisting of cemented, silicified breccia containing jasper, quartz veinlets, calcite, and abundant iron oxide (Tucker, 1938). The gold is reportedly usually in a very fine state and sulfides are present only in some of the deposits.

Mines and Gold Production

Mines in the Argus District include Arondo ($200,000); Davenport; Mohawk; Ruth ($700,000 or more); Star of the West; and Stockwell. Approximately 43,541 ounces of gold were produced from this district.

Recent Exploration Activity

Recent exploration activity has occurred in the Argus District in the form of drilling by Anaconda Mining Company and Queenstake Resources, Inc. to evaluate a disseminated ore body during the mid 1980's. No announced discovery of a commercial ore body has been made.

3.2.2.2 El Paso Mountains District (Kern County, Exhibit 2, Location #14)

Location and History

The El Paso Mountain District is located in northeastern Kern County, approximately 10 miles northwest and north of Randsburg. A series of dry placer workings are present between the Redrock Canyon area on the southwest and the Summit area on the northeast. The district also includes the areas known as the Goler, Garlock and Searles Districts. Gold was reportedly discovered in Goler Canyon in 1893, and dry washing camps soon sprang up at Last Chance, Red Rock, Jawbone Canyon and Summit Diggings (Hulin, 1934). Mining activity reportedly declined by 1900, but a number of operations were reactivated during the depression years of the 1930's, and since World War II, there has been minor prospecting. In these dry placer deposits, the easily recoverable gold was mined at one locality for a few months to up to a year or two (Tucker and others, 1949).

Geology

Auriferous sands and gravels occur in benches above the present canyons and on bedrock in the washes and canyons themselves (Haley, 1923). Much of the gold appears to have been derived from the erosion and reworking of the basal conglomerate of the Ricardo formation (lower Pliocene), which is extensive in this region (Hulin, 1934). The gold particles are round and show evidence of considerable abrasion. The gold is mostly fine, although nuggets of up to several ounces have reportedly been recovered (Clark, 1970). Some narrow gold-quartz veins reportedly occur in granite and schist as lode occurrences (Troxel and Morton, 1962).

Mines and Gold Production

Mines in this district included the placer camps known as Last Chance; Red Rock; Jawbone Canyon; and Summit Diggings. Lode gold mines with reported production included the Garlock Mine (Troxel and Morton, 1962). No production records for gold value or volumes were reported into the public record for this district. It is estimated that approximately 1,000 to 10,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

Recent exploration/development activity in this district has been reportedly limited to dry placer occurrences. No announced discovery of a commercial ore body has been made.

3.2.2.4 Rademacher District (Kern County, Exhibit 2, Location #15)

Location

The Rademacher District is located in northeastern Kern County, approximately 15 miles north of Randsburg and five miles south of Ridgecrest. The district was organized in the 1890's, and the most active period was in the early 1900's (Tucker and Sampson, 1933).

Geology

The Rademacher District is underlain by Mesozoic granitic rocks containing small roof pendants of Paleozoic and/or Mesozoic metamorphic rock and is reportedly cut by numerous dikes (Jennings, 1977; Troxel and Morton, 1962). Acidic dikes are most common within the eastern portion of the district but become more basic in composition to the west (Tucker and Sampson, 1933). A number of narrow, north-trending quartz veins reportedly often cut the dikes. The ore reportedly contains free gold with varying amounts of sulfides and manganese oxide. Milling-ore has been reported to usually average 0.5 oz/ton of gold, and the ore shoots usually are narrow with short stope lengths (Troxel and Morton, 1962).

Mines and Gold Production

Mines in the Rademacher District include: Apple Green; Bellflower; Broken Axle; Butte; Crown Cons.; Gold Bug; Gold Pass; Hillside; Huntington; Indian Wells Valley; Jerry; Lehigh Valley; Lost Keys; Northern View; Prize; Rademacher; Red Wing; Stardust; Star Lode; Steller group; Townsend; Vera Queens; White Star; Wildcat; and Yellow Treasure. No production records for gold value or volumes were reported in the public data reviewed for this district. Approximately 1,000 to 10,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration or development activity is known to have occurred in this district.

3.2.2.5 Slate Range District (Kern County, Exhibit 2, Location #16)

Location and History

The Slate Range District is located in northwestern San Bernardino and southern Inyo Counties. This district has also been known as the Arondo District. Gold occurs in several places in the Slate Mountains, the principal source apparently having been the Hafford Mine (Degroot, 1890).

Geology

The Slate Range District is underlain by Cretaceous granite and Mesozoic schist (Smith and others, 1968). The gold deposits reportedly consist of narrow quartz veins that contain small but rich gold- and silver-bearing pockets (Tucker and Sampson, 1943). In places, sulfides have been reportedly quite abundant.

Mines and Gold Production

The principal mine in the Slate Range District was reported to have been the Hafford Mine (Tucker and Sampson, 1943). No production records for gold value or volumes were reported in the public data reviewed for this district. Approximately 1,000 to 5,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration or development activity is known to have occurred in this district.

3.2.2.6 Spangler District (Kern County, Exhibit 2, Location #17)

Location and History

The Spangler District is located within the Spangler Hills of northwestern San Bernardino County, about 10 miles northeast of Johannesburg. Most of the reported gold production has been from the Spangler Mine, which has been intermittently prospected and developed since the 1890's (Wright and others, 1953).

Geology

The Spangler District is underlain by Mesozoic granitic rocks (Jennings and others, 1962). A number of narrow, west-striking gold-quartz veins traverse the granitic rock. Some of the ore reportedly contained more than 1.0 oz/ton of gold (Wright and others, 1953)

Mines and Gold Production

The mines in the Spangler District include Spangler Mine; Stephens Holding Mine; and Saint Elmo Mine. No production records for gold value or volumes were reported in the public record for this district. Approximately 1,000 to 5,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration or development activity is known to have occurred in this district.

3.2.3 Mojave Desert Province Mining Districts

Gold deposits are widely distributed throughout the Mojave Desert Province of southern California. The Mojave Desert is a broad interior region of mountain ranges separated by expanses of desert plains. The western portion of the province is triangular-shaped and bounded on the north by the extreme southern portion of the Sierra Nevada Mountain Range and on the south by the Transverse Range. The primary gold deposits of this province consist of mesothermal gold-quartz veins that occur in metamorphic and granitic rocks of Precambrian, Paleozoic, and Mesozoic ages or epithermal deposits in zones of solidification and brecciation in volcanic rocks of Tertiary age.

The largest sources of gold in this province have been the Randsburg and Mojave-Rosamond Districts located in Kern County. Placer gold has been recovered in quantity in many of the districts, considerable amounts having come from dry placers. The most productive dry placers known to have produced gold within the area of investigation have been in the Randsburg District.

3.2.3.1 Alvord District (San Bernardino County, Exhibit 2, Location # 18)

Location and History

The Alvord District is located in central San Bernardino County about 35 miles northeast of Daggett and is named for the Alvord Mine, the chief producer in the district. Gold was reportedly discovered here in 1885, and the Alvord Mine has been intermittently worked ever since (Clark, 1970).

Geology

The Alvord District is underlain by Mesozoic granite and Paleozoic carbonate rocks (Byers, 1960). Late Tertiary volcanic rocks are also present (Wright and others, 1953). Siliceous veins at the Alvord Mine contains jasper, calcite, hematite, pyrite, limonite, and free gold. Minor copper mineralization is reportedly present. Ore mined in the past reportedly yielded 0.5 oz/ton of gold (Clark, 1970).

Mines and Gold Production

The mine which produced gold in the Alvord District was known as the Alvord Mine. No production records for gold value or volumes were reported into the public record for this district. Approximately 5,000 to 20,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration or development activity is known to have occurred in this district.

3.2.3.2 Coolgardie District (San Bernardino County, Exhibit 2, Location #19)

Location and History

The Coolgardie District is a dry-placer mining district located in western San Bernardino County, about 15 miles northwest of Barstow. The area was reportedly mined intermittently from around 1900 to 1915 (Cloudman and others, 1919), with a total output valued at about $100,000 (Wright and others, 1953).

Geology

The Coolgardie District is underlain primarily by Mesozoic granitic rock with localized basic intrusives (Jennings, 1977). The placer deposits are contained within Quaternary alluvium that is in the axis of a broad valley. The gold apparently was derived from veins in granitic rocks that are located to the east and northeast of the district (Laizure, 1934).

Mines and Gold Production

The principal mining operator in the Coolgardie District was the Cool Gardie Mining Company, which operated a battery of gasoline-powered dry washers (Clark, 1970). Several two-man operations reportedly employed single dry washers or rockers. Minor prospecting was reportedly done in the district during the 1920's and 1930's (Hulin, 1934). A total of 4,837 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration or development activity is known to have occurred in this district.

3.2.3.3 Emerson Lake District (San Bernardino County, Exhibit 2, Location #20)

Location and History

The Emerson Lake District is located in southern San Bernardino County, approximately 25 miles northwest of Twentynine Palms.

Geology

The Emerson Lake District is underlain by Mesozoic quartz monzonitic rocks that have been intruded by basic (gabbro) bodies (Jennings, 1977; Dibblee, 1967b). The gold has reportedly been found in parallel veins in small pendants of gneiss and granitic rock as high-grade pockets near the surface (Tucker an Sampson, 1940). Several high-grade pockets of wire-gold have reportedly been found in this district.

Mines and Gold Production

The mines in the Emerson Lake District include Emerson and Los Padre. No confirmed amount of gold production was reported for these mines. No production records for gold value or volumes were reported in the public record for this district. Approximately 1,000 to 10,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration or development activity is known to have occurred in this district.

3.2.3.4 Fremont Peak District (San Bernardino County, Exhibit 2, Location #21)

Location and History

The Fremont Peak District is located about 18 miles southeast of the Randsburg District within San Bernardino County.

Geology

The Fremont Peak District is underlain by Precambrian gneiss that has been intruded by Cretaceous granitic rocks (Jennings, 1977; Dibblee, 1968). Rhyolitic dikes probably related to the Opal Mountain Volcanics intrude the older rocks and are associated with many of the gold occurrences in the district. Gold reportedly occurs along with pyrite and arsenopyrite in a series of parallel quartz veins (one to four feet wide) and also along the contacts of rhyolite dikes and the granitic basement rocks (Wright and others, 1953). Placer gold also occurs in this district but has not been worked because of the lack of water (Dibblee, 1968).

Mines and Gold Production

Among the several prospects, only one mine has any recorded production in the district, the Fremont Peak Mine, also known as the Gateway Mine. The Fremont Peak Mine contained over 3,200 feet of underground workings and has had an unknown amount of gold production. Gold mineralization is also reported to occur along fractured, iron-stained rhyolite dikes containing quartz stringers at some of the prospects with no reported past production (Wright and others, 1953; Dibblee, 1968). No confirmed amount of gold production was reported for these mines. No production records for gold value or volumes were reported into the public record for this district. Approximately 10,000 to 25,000 ounces or more of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration or development activity is known to have occurred in this district.

3.2.3.5 Goldstone District (San Bernardino County, Exhibit 2, Location #22)

Location and History

The Goldstone District is located in northwestern San Bernardino County, approximately 35 miles north of Barstow, in what is now part of the U.S. Naval Ordnance Test Station, Mojave Range. The Goldstone District was active in 1915 to 1918, in the 1920's, and again just before World War II (Cloudman and others, 1919; Wright and others, 1953).

Geology

The Goldstone District is underlain by Mesozoic granitic rock and large pendants of Paleozoic carbonates and siliceous shales (Jennings, 1977; Miller and Sutter, 1982). Numerous diorite dikes cut these rocks and several shallow, gold-bearing quartz veins have been discovered (Koschmann and Bergendahl, 1968). Copper and silver occurrences have also been reported to be present (Cloudman and others, 1919).

Mines and Gold Production

Although several mines are reported to have been present in this district no names could be found. No confirmed amount of gold production was reported for these mines. No production records for gold value or volumes were reported into the public record for this district. Approximately 10,000 to 20,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

Recent exploration activity has occurred in the Goldstone District in the form of drilling by Goldfields Mining Corporation to evaluate a disseminated ore body. No announced discovery of a commercial ore body has been made. Since then, the U.S. Government has removed this mining district from public entry and it is now part of the Fort Irwin military reservation.

3.2.3.6 Grapevine District (San Bernardino County, Exhibit 2, Location #23)

Location and History

The Grapevine District is located within the Paradise Mountains of San Bernardino County approximately 15 miles north of Barstow. There are several small lode-gold mines, prospects and dry placer deposits in this area (Clark, 1970).

Geology

The Grapevine District is underlain by Mesozoic granitic rock that has been intruded by Miocene andesitic volcanics and Tertiary hypabyssal intrusive bodies (Jennings, 1977). Gold has reportedly been produced from quartz veins that contained free gold. A number of the quartz veins also reportedly contained copper and manganese minerals. The veins are narrow and the deposits are shallow.

Mines and Gold Production

The Olympus Mine was the only property that has had much development work. An unknown volume of gold was produced from this mine (Wright and others, 1953). No production records for gold value or volumes were reported into the public record for this district. Approximately 1,000 to 5,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration or development activity is known to have occurred in this district.

3.2.3.7 Kramer Hills District (San Bernardino County, Exhibit 2, Location #24)

Location and History

The Kramer Hills District is located about eight miles southeast of Kramer Junction in western San Bernardino County.

Geology

The Kramer Hills consists of a group of a rolling hills that are pedimented surfaces that contain a variety of exposed rock types. Cretaceous granitic rocks, which have intruded Mesozoic metamorphic rocks of probable Sidewinder Series equivalent, are the most common rocks cropping out in the district (Wright and others, 1953). Dikes and irregular bodies of rhyodacite to rhyolite intrude these older rocks. Tertiary tuffaceous sediments that were deposited in the Kramer Basin are exposed in the northern and southern portions of the Kramer Hills (Siefke, 1980).

Mines and Gold Production

No known gold production had occurred from the Kramer Hills District until the 1980's when a small heap leach gold recovery operation was placed online by Beaver Resources. Numerous small pits and adits are present in this district that are typically a maximum of only several tens of feet deep and are largely caved at present. Rocks exposed on dumps and at several portals appear to consist of highly pyritized and iron oxide-stained metamorphic rocks that are probably Sidewinder Series equivalent.

No production records for gold value or volumes were reported into the public record for this district prior to the 1980's. Pre-1980 gold production is estimated to have been approximately 1,000 to 5,000 ounces based on geology and gold occurrences similar to other mining districts with established gold production. In 1987, Beaver Resources placed a small heap-leach gold recovery pad into operation. This operation remained in place until about 1989 and appears to have produced approximately 5,000 to 20,000 ounces of gold. Based on these estimates, it is concluded that approximately 6,000 to 25,000 ounces of gold have been produced from this district.

Recent Exploration Activity

Recent exploration activity has occurred in the Kramer Hills District in the form of drilling. Amselco Minerals and Phillips 66 Mining Company evaluated a disseminated gold ore body within this district. No announced discovery of a commercial ore body has been made. Approximately 20,000 ounces of gold resource base is present in this district based on known geology and established gold production from mining districts with similar conditions.

3.2.3.8 Mojave-Rosamond District (Kern County, Exhibit 2, Location #25)

Location and History

The Mojave-Rosamond District is located in southeastern Kern County, between the towns of Mojave and Rosamond. The gold deposits are associated with the five prominent buttes south of the town of Mojave and west and north of the town of Rosamond. Gold was discovered in the Yellow Rover vein on Standard Hill in 1894, and soon afterward, other discoveries were made (Bateson, 1907; Brown, 1916). Activity continued until about 1910, but waned over the next 20 years (Troxel and Morton, 1962). The Cactus Gold Mine was discovered in 1934, and from 1931 until 1941, mining was done in the district on a major scale. The mines were shut down during World War II. The district is estimated to have had a total gold and silver output valued at $23 million (Troxel and Morton, 1962).

Geology

The principal rocks within the Mojave-Rosamond District are Tertiary rhyolite, rhyolite porphyry and quartz latite, which are underlain by Mesozoic quartz monzonite (Jennings, 1977; Dibblee, 1963, 1967a, 1980). All of the gold deposits are associated with the five topographic prominences, the most important of which, both in productivity and in the number of deposits, is Soledad Mountain (Perez, 1978). The gold ore reportedly occurs in epithermal fissure veins that occupy brecciated and sheared zones in the volcanic rocks. The ore contains finely divided gold, with appreciable amounts of silver minerals, including cerargyrite, argentite, and smaller amounts of pyrargyrite and electrum. Pyrite, arsenopyrite, galena and chalcopyrite also are present. The ore shoots range from a few feet to 40 feet in thickness, and are up to 200 feet long (Tucker and others, 1949a). The veins have reportedly been developed to depths of 1,000 feet. Milling ore is reported to have usually averaged about 0.3 oz/ton of gold, but some very rich ore shoots were worked in the earlier mining operations (Troxel and Morton, 1962; Brown, 1916; Tucker, 1935).

Mines and Gold Production

Mines in this district include: Burton-Brite-Blank; Cactus Gold ($5 million+); Double Eagle; Crescent; Elephant ($200,000 to $400,000); Excelsior; Golden Queen (includes Echo and Gray Edge, Queen Ester and Silver Queen) ($10 million+); Middle Butte ($150,000+); Milwaukee; Pride of Mojave; Quien Sabe; Standard group (Desert Queen, Exposed Treasure and Yellow Rover) ($3.5 million); Tropico (114,000 ounces); Wegman group (Eureka, Karma and Monarch) (100,000 ounces or more); Western; Whitmore; Winkler; and Yellow Dog (5,800+ ounces).

Based on published gold volume and price data, it is estimated that approximately 1.046 million ounces of gold was produced prior to 1970. During the 1980's two of the previous gold mines the Standard Hill Mine and the Cactus Gold Mine were reactivated as large tonnage, disseminated gold projects. The Standard Hill Mine was reactivated by Billiton Minerals USA and reportedly produced 115,000 ounces of gold from an open pit that mined the former underground workings from 1987 to 1994. The Cactus Gold Mine was reactivated during the late 1980's in a similar fashion and reportedly recovered approximately 200,000 ounces of gold from 1986 to 1994.

Golden Queen Mining Company, Inc. has announced gold reserves and resources of approximately 2.3 million ounces for the Soledad Mountain Project. It is estimated that the remaining potential for the Mojave-Rosamond District, except for the Soledad Mountain Project, is approximately 25,000 ounces. Total recorded production and estimated reserves for the Mojave-Rosamond District amount to 2.486 million ounces of gold.

Recent Exploration Activity

Exploration activity is underway at Cactus Gold and no announcements have been made.

3.2.3.9 Ord District (San Bernardino County, Exhibit 2, Location #26)

Location and History

The Ord district is located in the Ord and Newberry Mountains, approximately 20 miles southeast of the city of Barstow. The district was organized around 1870, and intermittent development work continued for many years after (Clark, 1970; Cloudman and others, 1919). There was some intermittent activity in the district during the 1930's. Although the district is reported to have been a small gold producer, there are many mines and prospects.

Geology

The region is underlain by granite and quartz monzonite and a variety of Tertiary volcanic rocks that include basalt, andesite and rhyolite (Weber, 1963; Dibblee, 1964b). The gold-quartz veins are reportedly confined to the granitic rocks and often are associated with dikes. The ore bodies contain abundant sulfides and iron oxide (Wright and others, 1953). Appreciable amounts of copper and silver minerals are reportedly present in places. There are reportedly a few gold-bearing placer deposits located in this district (Tucker, 1940).

Mines and Gold Production

The mines reported in this district include: Alarm; Azucar; Black Butte; Camp Rock (placer); Cumberland; Elsie; Gold Banner; Gold Belt; Gold Brick; Gold Peak; Grandview; Haney and Lee; Hoover; Johnson; Lucky Strike; New Deal; Old; Ord Belt; Red Hill; and Riley. An unknown volume of gold was produced from these mines (Wright and others, 1953). No production records for gold value or volumes were reported into the public record for this district. Approximately 1,000 to 10,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

Recent precious metals exploration has reportedly occurred in this district to evaluate a possible porphyry copper occurrence that may be gold-bearing. Bear Creek Mining, Duvall Corporation, and Cypress Mining Company have each conducted exploration drilling campaigns in the Ord District over the last 25 years. No announced ore reserves or discovery have been announced by any of these companies.

No recent development activity within the last 10 years is known to have occurred in this district.

3.2.3.10 Oro Grande District (San Bernardino County, Exhibit 2, Location #27)

Location

The Oro Grande District is located in the vicinity of the town of Oro Grande approximately five miles north of Victorville. The gold mines in this district were active during the 1880's, early 1900's and again in the 1930's (Clark, 1970). Large amounts of cement are produced here now.

Geology

The Oro Grande District is underlain by schist, quartzite and limestone of the Oro Grande series (Carboniferous); dacite, rhyolite and latite of the Sidewinder volcanic series (Triassic); and Cretaceous quartz monzonite (Jennings, 1977; Bowen and VerPlanck, 1965). The quartz veins are narrow, and the ore bodies usually are generally small and irregular shaped. Most of the ore has come from the oxidized zone near the surface, but a few high-grade pockets have been found in the veins. The ore contains free gold and often abundant sulfides, including pyrite, chalcopyrite, sphalerite and bornite. The Carbonate Mine has yielded appreciable amounts of gold- and silver-bearing lead carbonate (Wright and others, 1953).

Mines and Gold Production

The mines in this district include: Apex; Branch; Carbonate; Dents Grandview Lode; Gold Bullion; Gold King; Oro Grande I and II; Sidewinder; and Western. An unknown volume of gold was produced from these mines (Wright and others, 1953). Approximately 1,000 to 5,000 ounces of gold were produced in this district based on geology and gold occurrences similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration or development activity within the last 10 years is known to have occurred in this district.

3.2.3.11 Randsburg District (Kern and San Bernardino County, Exhibit 2, Location #28)

Location and History

The Rand or Randsburg District straddles the Kern-San Bernardino County line in the immediate vicinity of the town of Randsburg, about 40 miles northeast of Mojave. The western part of the district is located in Kern County and has been chiefly a source of gold (Troxel and Morton, 1962). The eastern part of the district is located in San Bernardino County and, has been largely a source of silver (Wright and others, 1953).

Although this region was prospected as early as the 1860's, it was not until placer gold was discovered in 1893 in Goler Wash, in the El Paso Mountains 15 miles to the west, that there was any mineral production (Newman, 1923). Numerous short-lived dry-washing camps soon sprang up over the entire region. The Yellow Aster Mine, originally known as the Olympus, was located in 1895 (Cooper, 1936). Other gold discoveries were made in the district, and the rich ore recovered in these early operations led to a gold rush (Hess, 1909). The district was named for the Rand District in South Africa.

Large-scale gold mining continued until 1918. The famous and highly productive Kelly or California Rand Silver Mine was discovered in 1919 and was operated on a major scale through the 1930's (Troxel and Morton, 1962). Gold production from the district was substantial in the 1930's and early 1940's. Since that time there has been ongoing prospecting development work.

Geology

The principal rocks underlying the Randsburg District are the Precambrian Rand Schist and the Atolia Quartz Monzonite of Mesozoic age (Hulin, 1925; Jennings, 1977). The Rand Schist is chiefly biotite schist with smaller amounts of amphibolite and quartzite. To the east are poorly consolidated clays, sandstones and conglomerates of continental origin, which are overlain by andesite at Red Mountain. Rhyolite and latite intrusives are present in the east-central part of the district.

Most of the lode-gold deposits are in veins that occur along faults, except at the Yellow Aster Mine, where the gold is in a series of closely spaced veinlets in small fractures (Troxel and Morton, 1962). The majority of the gold deposits are in the schist, which is more widespread than the quartz monzonite (Jennings, 1977). The veins are unoriented, but usually have a well-defined hanging wall.

The ore bodies most commonly occur in the vein footwalls, usually at or near vein intersections or in sheared and brecciated zones. The ore reportedly consists of iron oxide-stained brecciated and silicified rock containing native gold in fine grains and varying amounts of sulfides. The sulfides increase with depth, but the gold values decrease. Most mining has stopped where unoxidized sulfides were found in the veins, and the maximum depth of development is 600 feet.

Milling ore reportedly contained from 0.15 to 0.25 oz/ton of gold (Troxel and Morton, 1962). The high-grade ore nearly always occurred in pockets near the surface. Most of the placer gold has been recovered from dry placers at Stringer or in the Rand Mountains north of Randsburg.

Mines and Gold Production

The mines in the Randsburg District included: Arizona; Baltic,($50,000); Barnett; Beehive; Big Dike ($200,000); Big Gold ($500,000); Black Hawk ($700,000); Buckboard ($500,000);

Bully Boy ($120,000); Butte ($2 million); California; Consolidate ($50,000); Culbert; Gold Crown; Granton; Gunderson; Hawkeye; Hercules; King Solomon ($500,000); Little Butte ($400,000); Lucky Boy ($120,000); Merced; Minnehaha ($100,000); Mizpah Montana; Monarch Rand; New Deal; Operator Divide ($600,000); Pestle; Pinemore; Red Bird; Santa Ana group ($400,000); Sidney ($250,000); Snowbird; Sunshine ($1.06 million); Windy; Winnie; and Yellow Aster ($12 million).

Glamis Gold Ltd. continues to operate a large heap-leach mine as the Rand Mining Company at the Yellow Aster heap leach which reportedly processes gold ore at the rate of approximately 7 million tons of ore a year with an average gold concentration of about 0.018 oz/ton. This production level is capable of producing approximately 100,000 oz/year of gold according to industry sources. It is estimated that approximately 300,000 to 400,000 ounces more of gold will be produced before Glamis Gold completes its operations in Randsburg.

Based on published gold volume and price data, it is estimated that approximately 967,565 ounces of gold was produced in the Randsburg District prior to 1970 (Troxel and Morton, 1962). During the 1980's the mining of low-grade, disseminated gold deposits with the heap-leach cyanide recovery operations contributed another 500,000 ounces of gold production. Total recorded gold production and estimated reserve and resource base for the Randsburg District amounts to 1.767 to 1.867 million ounces of gold.

Recent Exploration Activity

No additional recent precious metals exploration has reportedly occurred in the Randsburg District other than to support the ongoing Glamis Gold Ltd. operations.

3.2.4 Transverse Range Province Mining Districts

The Transverse Range province is comprised of a series of complex-shaped, nearly east-west trending mountain ranges and valleys. The province includes the San Gabriel, San

Bernardino, and Santa Ynez Mountains. The most productive gold-quartz mines have been in the Frazier Mountain, Acton, and Baldwin Lake Districts where the deposits occur in metamorphic and granitic rocks. The most common and most typical primary gold deposits are steeply dipping gold-bearing quartz veins. These veins usually range from 1 to 10 or more feet in thickness. A number of gold ore bodies consist of several parallel quartz veins or they may consist of a zone of numerous narrow quartz stringers (Clark, 1982).

3.2.4.1 Acton District (Los Angeles County, Exhibit 2, Location #29)

Location and History

The Acton District is located in north-central Los Angeles County, in the general vicinity of the town of Acton, 20 miles north of Los Angeles. This district also includes the area known as the Cedar district. Placer gold was mined in the San Gabriel Mountains here as early as 1834 (Clark, 1970). Lode mining apparently began here in the 1870's or 1880's. The district was reportedly quite productive until about 1900. A number of mines, including the Red Rover, Governor and Monte Cristo, were active again during the 1930's and early 1940's (Gay and Hoffman, 1954). The district has been intermittently prospected since, but there has been very little recorded production.

Geology

The Acton District is underlain by Mesozoic quartz diorite, diorite, and Precambrian schist. (Jennings, 1977; Oxyacid, 1958). The gold deposits are reported to consist of gold-quartz veins in quartz diorite, diorite, gabbro and schist. The quartz veins are in faulted and fractured zones and the gold ore is free milling and contains varying amounts of pyrite. The ore bodies commonly consist of small parallel veins rather than a single large vein. The Governor Mine has been developed to an incline depth of 1,000 feet.

Mines and Gold Production

The mines in the Acton District include: Buena Esperanza; Governor (New York) ($1.5 million+); Helene; Hi-Grade; Red Rover ($550,000); and Puritan. Based on published gold volume and price data, it is estimated that approximately 99,177 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred.

3.2.4.2 Azusa-Tujunga District (Los Angeles County, Exhibit 2, Location #30)

Location and History

The Azusa-Tujunga District is located along the south flank of the San Gabriel Mountains north and east of Los Angeles. Placer gold has been recovered from a number of canyons and washes within this area. Two of the most important sources of gold have been the San Gabriel Canyon, near Azusa, and Tujunga Canyon, located to the west.

Geology

The Azusa-Tujunga District is underlain by Precambrian gneiss and granitic rock on which Quaternary alluvial deposits rest (Gay and Hoffman, 1954). The gold placers are produced from the alluvial deposits. The gold is reportedly fine-grained and has been produced mostly from sand and gravel operations as a byproduct in the 1930's and 1950's (Clark, 1982).

Mines and Gold Production

No confirmed amount of gold production was reported into the public record for the placer deposits from this district. Approximately 1,000 to 10,000 ounces or more of gold were produced in this district based on geology and gold occurrences in placer deposits similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration activity is known to have occurred in this district.

3.2.4.3 Baldwin Lake District (San Bernardino County, Exhibit 2, Location #31)

Location and History

The Baldwin Lake District is located in the general vicinity of and east of Baldwin Lake, which is in the northern portion of the San Bernardino Mountains. Placer gold was reportedly mined here by Mexicans possibly as early as 1800 (Cloudman and others, 1919). The Rose Mine was active in 1860, and there was considerable activity in the district in the 1890's and early 1900's. The Doble Mine was active again in the 1930's and 1940's (Clark, 1970).

Geology

The Baldwin Lake District is underlain by Mesozoic age mica schist and quartzite, Paleozoic carbonate rocks, and Cretaceous granite rocks (Wright and others, 1953). The lode gold ore deposits consist of systems of irregular shaped quartz-calcite veins containing free-gold, scheelite, and sulfides. The greatest depth of reported development is about 400 feet (Clark, 1970). Placer deposits are also reported to have been worked in this district.

Mines and Gold Production

Lode mines that are reported to have been worked in the Baldwin Lake District include the Christie; Doble ($250,000 to $300,000); Erwin; Gem; Gold Hill; Hollie Ann; Lester; Log Cabin; Rose ($450,000 to $600,000); and Stewart. Placer deposits include the McClure-Bess, Parker, Rattlesnake Canyon, Vaughn and Weaver. Based on published gold volume and price data, it is estimated that approximately 43,541 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred in this district.

3.2.4.4 Black Hawk District (San Bernardino County, Exhibit 2, Location #32)

Location and History

The Black Hawk District is located in southwestern San Bernardino County approximately 30 miles northeast of the city of San Bernardino on the north flank of the San Bernardino Mountains. This district has also been known as the Silver Reef District. The district was reportedly organized in 1870 (Tucker, 1921). An English concern organized the Santa Fe claim group in 1890 to work the district on a large-scale basis but work stopped soon afterward and prospecting was minor during the early 1900's. The Santa Fe group was reopened in 1921 and operated continuously until 1940. During this last operation the gold production was reported to amount to $300,000.

Geology

The area of the Black Hawk District is underlain by Cretaceous granitic rock, Mesozoic schist, gneiss, and a Paleozoic limestone belt (Woodford and Harris, 1928; Dibblee, 1964a). A mineralized zone known as the Arlington-Santa Fe lode occurs along thrust-fault plane that strikes west and dips north. The gold ore reportedly consists of hematite-bearing gouge and a limestone breccia (Tucker and Sampson, 1930). Several ore bodies reportedly yielded up to 1 oz/ton (Wright and others, 1953). The ore zones in this district are up to 75 feet thick and approximately 1,000 feet long.

Mines and Gold Production

The principal mines in the Black Hawk District that produced most of the gold was referred to as the Santa Fe Group and the Lester (Clark, 1982). Based on published gold volume and price data, it is estimated that approximately 145,000 ounces of gold were produced from this district.

Recent Exploration Activity

Recent precious metals exploration has reportedly occurred in this district to evaluate potential low-grade disseminated gold deposits. Amselco Minerals and Santa Fe Gold have each reportedly conducted exploration drilling campaigns in the Black Hawk District over the last 15 years. No ore reserves or discovery has been announced by any of these companies.

3.2.4.5 Frazier Mountain District (Los Angeles County, Exhibit 2, Location #33)

Location and History

The Frazier Mountain District is located in the extreme northeast corner of Ventura County, in the general vicinity of Frazier Mountain. The Piru district is just to the south, and the towns of Gorman and Fort Tejon are located to the east. The region was first placer-mined in the 1840's, and the Frazier Mountain Mine was opened in 1865. This and other lode-gold mines were worked fairly steadily until around 1895. Minor prospecting and development work has been done in the district since; a small production was recorded in 1952.

Geology

The Frazier Mountain District is underlain by granite, granodiorite, gneiss and schist, and smaller amounts of quartzite and hornfels (Jennings, 1977; Carman, 1964). The gold-quartz veins reportedly strike north, range from a few inches to five feet in thickness, and occur in shear zones that are principally in gneiss and schist (Tucker and Sampson, 1932). The ore is free milling and reportedly contains pyrite and small amounts of other sulfides. Milling-grade ore commonly averaged 0.5 oz/ton of gold. Several of the ore bodies had stope lengths of up to 300 feet. Some placer gold was recovered in the district from the streams and older terrace gravels (Carman, 1964).

Mines and Gold Production

The mines located in the Frazier Mountain District included Bunker Hill; Esperanza; Fairview; Frazier ($1 million); Gold Dust; Harris; Hess; Maule; Sibert; and White Mule. Based on published gold volume and price data, it is estimated that approximately 48,379 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration or development activity within the last 10 years is known to have occurred in this district.

3.2.4.6 Holcomb Valley District (San Bernardino County, Exhibit 2, Location #34)

Location and History

The Holcomb Valley District is located on the north side of the San Bernardino Mountains just north of Big Bear Lake. Placer gold deposits were discovered here in 1860 and extensively worked for a few years (Clark, 1970). The area has been intermittently prospected ever since.

Geology

The Holcomb Valley District is underlain by Cretaceous quartz monzonite that is surrounded by Paleozoic carbonates and metasediments (Dibblee, 1964; Richmond, 1960). The placer gold occurrences are in alluvium that is Recent to Late Tertiary in age. In addition to the placers, lode-gold occurrences are present in the form of thin-shear and fracture zones within the Cretaceous granitic rocks and/or in contacts between Paleozoic carbonate and Tertiary intrusive rocks (Cloudman and others, 1920).

Mines and Gold Production

Gold deposits in the Holcomb district consist of both placers and lodes. The placers were the earliest worked and have been reportedly the most productive. The placers were extensively worked in the 1860's. Lode mine production from the district is estimated to be about 54,500 ounces of gold (Koschmann and Bergendahl, 1968).

Mines of interest in the district include:

Ozier Mine. One of the extensive lode workings in Holcomb Valley area. First worked by Mexicans in the 1850's, most active between 1860-90 (Clark, 1982). Mine output unknown but presumed significant. Mine area underlain by quartz monzonite. Workings consisted of numerous shallow shafts and adits that followed numerous closely-spaced, steeply dipping west-northwest-trending fractures that occur along a zone that is over 200 feet wide. The gold-bearing material in this zone is reported to consist of highly hematitic-stained, fractured and decomposed quartz monzonite that contained little actual quartz vein material (Wright and others, 1953).

Green Lead. Gold and silver bearing copper-stained quartz zone at contact between limestones of Furnace Formation and biotite quartz monzonite. Quartz-bearing zone reported to be two to four feet wide. Reported to contain free milling gold ore (Wright and others, 1953).

Gold Button. Granite cataclasite associated with thrust faulting said to contain gold and silver-bearing material along shear zones. Extent of mineralization uncertain but cataclasite zone is over ½ mile in width (Wright and others, 1953).

From 1933 to 1941 about 200,000 cubic yards of Recent and Late Tertiary alluvium were mined by power shovel that reportedly contained about 0.38/dollars per yard of recoverable gold (Clark, 1970). Based on published gold volume and price data, it is estimated that approximately 102,171 ounces of gold was produced from this district.

Recent Exploration Activity

No recent exploration or development activity within the last 10 years is known to have occurred in this district.

3.2.4.7 Lytle Creek District (San Bernardino County, Exhibit 2, Location #35)

Location and History

The Lytle Creek District is located in southwestern San Bernardino County in the eastern San Gabriel Mountains. During the 1890's there was reportedly an appreciable amount of placer gold mining activity in this district (Clark, 1970). Operations extended from near the mouth of Lytle Creek to near its headwaters on the east slope of Mount San Antonio (Mount Baldy). Placer mining was reportedly accomplished by both hydraulic and hand methods (Clark, 1970).

Geology

The Lytle Creek District is underlain by the Cretaceous age Pelona Schist Formation and has been locally intruded by Later Tertiary granodiorite (Jennings, 1977). The San Andreas Fault is located approximately two miles north of the district. Numerous faults that are probably related to the San Andreas Fault system are present within the district.

Mines and Gold Production

No confirmed amount of gold production was reported into the public record for the placer deposits from this district. Approximately 1,000 to 10,000 ounces or more of gold were produced in this district based on geology and gold occurrences in placer deposits similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration activity is known to have occurred in this district.

3.2.4.8 Mount Baldy District (San Bernardino County, Exhibit 2, Location #36)

Location and History

The Mount Baldy District is located within the San Gabriel Mountains of eastern Los Angeles County. The district is just west of Mount San Antonio, which is also known as Mount Baldy or Old Baldy. The district contains both lode- and placer-mining operations (Clark, 1970). Placer mining was originally done here in the San Gabriel River in the 1840's, and for several periods following that time (Gay and Hoffman, 1954). The Mount Baldy District was quite productive (Clark, 1982). Production was obtained from both the stream beds and from terrace gravels, which were mined by hydraulic methods. In 1874 it was reported that more than $2 million had been produced in the previous 18 years (Clark, 1982). The principal period of lode-gold mining was 1903-1908, but there was some activity again in the 1930's.

Geology

The Mount Baldy District is underlain by the Mesozoic age Pelona Schist and Mylonite of Vincent Thrust that has been intruded by Late Tertiary granodiorite (Youngs, 1988). The gold-quartz veins reportedly occur in the schist and gneiss immediately adjacent to the fault plane of the Vincent Thrust Fault. The ore bodies usually are three feet or less in thickness and do not extend to any great depth. The oxidized zones near the surface yielded the richest ore (Gay and Hoffman, 1954).

Mines and Gold Production

Mines located in the Mount Baldy District include: Allison ($50,000); Baldora; Big Horn ($40,000+); Eagle; Gold Dollar; Holly; Heaton; Native Son; Stanley; and Zanteson. An estimated 96,758 ounces of gold was produced from the placer accumulations in this district (Clark, 1982). An additional 50,000 ounces of gold was produced from the lode mines in this district (Clark, 1982).

The Big Horn Mine is currently owned by Siskon Gold, Inc. which has reportedly drilled out a proven and probable reserve base of 300,000 ounces of gold at a grade of 0.144 oz/ton. Additional production may be obtained from a gold resource base of approximately 540,000 ounces. Siskon is attempting to place this property into production and has obtained a number of its required governmental operating permits.

Based on known and extrapolated past production from placer and lode gold mines of 146,758 ounces and the identified proven and resource base of gold at the Big Horn Mine, the total gold resource that can ultimately be produced from the Mount Baldy District is approximately 986,758 ounces.

Recent Exploration Activity

Other than the activity related to the Big Horn Mine no recent exploration activity is known to have occurred in this district.

3.2.4.9 Mount Gleason District (Los Angeles County, Exhibit 2, Location #37)

Location and History

The Mount Gleason District is located in northern Los Angeles County in the general vicinity of Mount Gleason, about 15 miles due north of Pasadena.

Geology

The Mount Gleason District is underlain by Mesozoic age granitic rock that surrounds small pendants of schist (Jennings, 1977). A number of small, lode-gold deposits have been reported to have occurred in granite and metamorphic rocks (Sampson, 1937; Clark, 1982).

Mines and Gold Production

The principal mines that are known to have been worked in this district are the Los Padre and Mount Gleason Mines. None of these mines have been worked in many years (Tucker, 1927). No confirmed amount of gold production was reported into the public record for the placer deposits from this district. Approximately 1,000 to 10,000 ounces or more of gold were produced in this district based on geology and gold occurrences in placer deposits similar to other mining districts with established gold production.

Recent Exploration Activity

No recent exploration activity is known to have occurred in this district.

3.2.4.10 Neenach District (Los Angeles County, Exhibit 2, Location #38)

<u>Location and History</u>

The Neenach District is located in the northern portion of Los Angeles County, about 20 miles west-northwest of Lancaster. Gold was discovered here in 1899, but the bulk of the production of about $200,000 was reportedly obtained in 1935-38 (Clark, 1970; 1982). There reportedly has been intermittent mining and development work here since the 1930's (Clark, 1970).

<u>Geology</u>

The Neenach District is underlain by Mesozoic quartz monzonite rock that is overlain by Tertiary sediments and volcaniclastic sediments (Wiese, 1950). Small roof pendants of Paleozoic metasediments are present in the district (Simpson, 1934). The gold deposits occur in a contact zone between metasediments and quartz monzonite. The ore bodies consist of zones of narrow quartz veins and stringers containing free gold and varying amounts of pyrite. The oxidized zone yielded material valued as high as $60 of gold per ton. Most of the production has been from the Rivera or Rogers-Gentry group of mines (Sampson, 1937).

<u>Mines and Gold Production</u>

The mines in the Neenach District reportedly consisted of the Rivera or Rogers-Gentry group of mines (Clark, 1970). No confirmed amount of gold production was reported into the public record for the placer deposits from this district. Based on published gold volume and price data, it is estimated that approximately 9,675 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred in this district.

3.2.4.11 Piru District (Ventura County, Exhibit 2, Location #39)

Location and History

The Piru District is located in northeastern Ventura County in the vicinity of Piru Creek. Placer mining was begun here in 1841 and gold from the district was shipped to the U.S. Mint in Philadelphia in 1842 (Clark, 1970; Bowers, 1888). Small-scale placer mining continued intermittently through the 1890's, and there was some work again in the 1920's and 1930's (Huguenin, 1919; Clark, 1970).

Geology

The Piru District is underlain by Precambrian gneiss (Jennings, 1977). The placer gold deposits are in and adjacent to the upper part of Piru Creek, chiefly in the vicinity of its junction with Lockwood Creek, and to the east in the Gold Hill area (Clark, 1970). The placer gold has been recovered both from Recent stream gravels and older terrace deposits on the hills north of Lockwood Creek. The placer gold often is coarse-grained. There are a number of north-striking gold-quartz veins that range from a few inches to about four feet in thickness. The veins occur in shear zones, and usually in granitic gneiss or hornblended schist. The ore contains free gold and varying amounts of pyrite. Milling ore sometimes averaged 0.5 oz/ton of gold.

Mines and Gold Production

The placer mines in the Piru District were not named. Among lode-gold mines, the principal operation was the Castaic Mine, which has an estimated total output valued at about $160,000 (Tucker, 1925). No confirmed amount of gold production was reported into the public record for the placer deposits from this district (Tucker, 1932). Based on published gold volume and price data, it is estimated that approximately 7,740 ounces of gold was produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred in this district.

3.2.4.12 Saugus District (Los Angeles County, Exhibit 2, Location #40)

Location and History

The Saugus District is located in the western San Gabriel Mountains in Los Angeles County near the towns of Newhall and Saugus. This area is an extensive placer gold district and includes the upper Santa Clara River, Sand Canyon, Pacoima Canyon, and Arrastre Canyon areas as well as a number of small canyons (Clark, 1970). This area is also known as the Newhall or San Gabriel Districts (Sampson, 1937). Gold was discovered in the district in the early 1800's and the placers have been worked intermittently since then. Production estimates of $100,000 have been reported to have occurred during the first few years of development (Oakshott, 1958).

Geology

The Saugus District is underlain by Recent and older Quaternary alluvium deposits which contain gold-bearing placer deposits (Jennings, 1977).

Mines and Gold Production

The placer mines in the Piru District were not named. No confirmed amount of gold production was reported into the public record for the placer deposits from this district.

Based on published gold volume and price data, it is estimated that approximately 4,837 ounces of gold were produced from this district.

Recent Exploration Activity

No recent exploration activity is known to have occurred in this district.

3.3 Land Status Review of Area of Investigation

The land status of the area of investigation is shown in generalities on Exhibit 2. Numerous military bases are located within the area of investigation that have restricted or precluded future mineral exploration and/or development. In addition, Exhibit 2 depicts the approximate boundaries of the U.S. Forest Service and U.S. Bureau of Land Management Roadless and Primitive areas and California state park lands.

3.4 Alternative Project Site Economic Viability Criteria

Review of the Soledad Mountain Project geology and mineralization suggests that an alternative site for the project should have the following minimum criteria:

- Ore reserves of 60,000,000 tons or more at a grade of 0.030 oz/ton gold-equivalent.
- Stripping ratio of overburden to ore of less than 4:1.
- Sufficient groundwater resources to support a heap-leach cyanide recovery process.
- Infrastructure such as electrical power access within five miles of the proposed alternative site.

4.0 CONCLUSIONS

The conclusions of the WZI investigation were as follows:

1. Forty mining districts were evaluated within the area of investigation for feasibility of alternate project site where gold mineralization in commercial quantities may exist.

2. A total of fourteen of the alternate project site mining districts evaluated are located either within or immediately adjacent to state of California or Federal lands that have been designated as Primitive or Wilderness Areas.

3. A total of three of the alternate project site mining districts evaluated are located within or immediately adjacent to federal military lands.

4. Alternate project sites that are not excluded by the above factors are:
   - The Yellow Aster Mine owned by Glamis Gold Ltd. in the Randsburg District
   - The Zenda Mine project owned by Claim Staker Resources, Inc. in the Loraine District
   - The Big Horn Mining project owned by Siscon Gold, Inc. located in Los Angeles County in the Mount Baldy District

5. None of the alternate sites have potential ore reserves that amount to 25 percent of the projected ore reserves of the Golden Queen Soledad Mountain Project.

6. In each of these alternative project locations a mining company has already established controlling interest in the identified mining properties.

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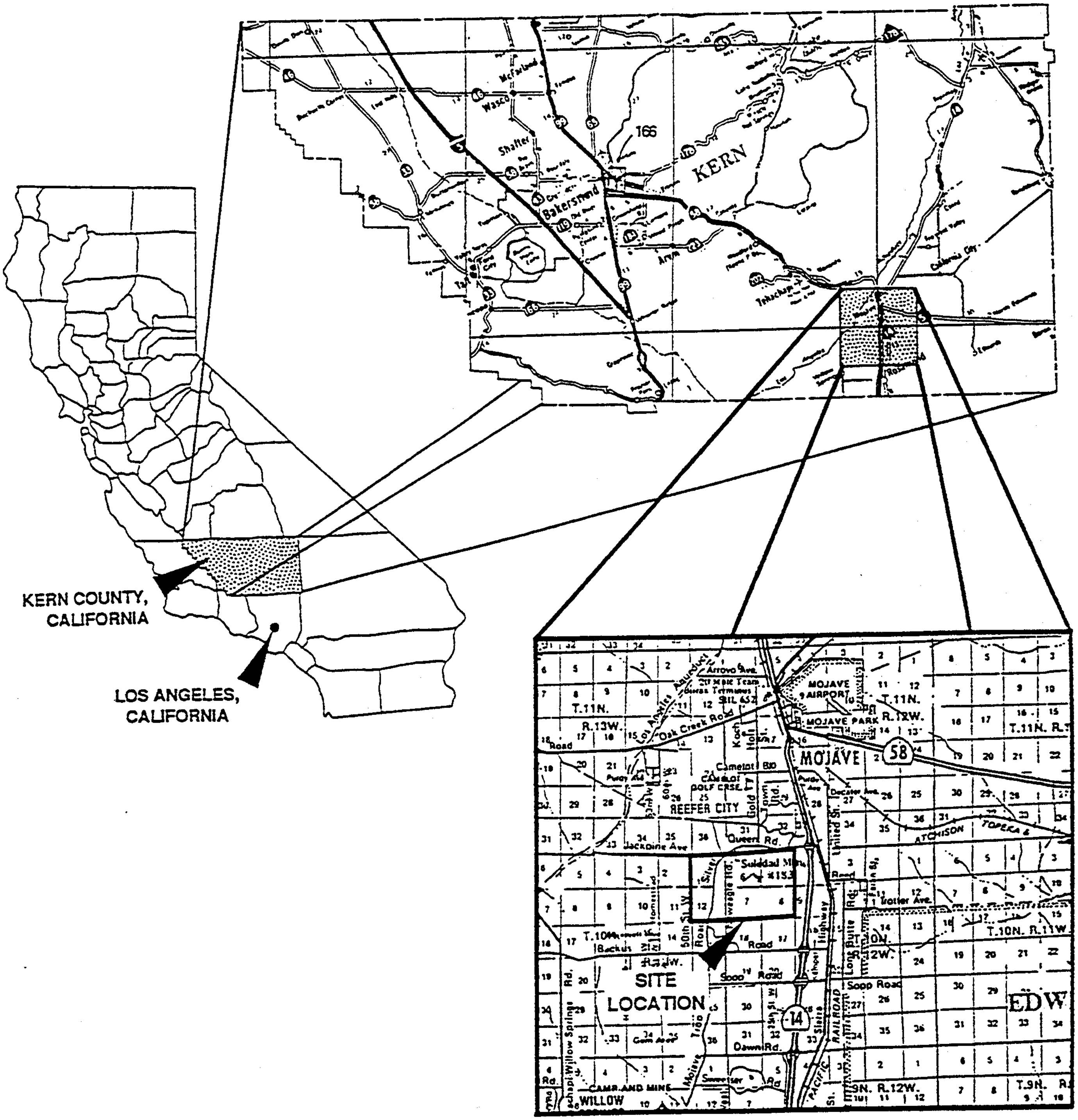
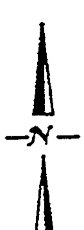
EXHIBITS



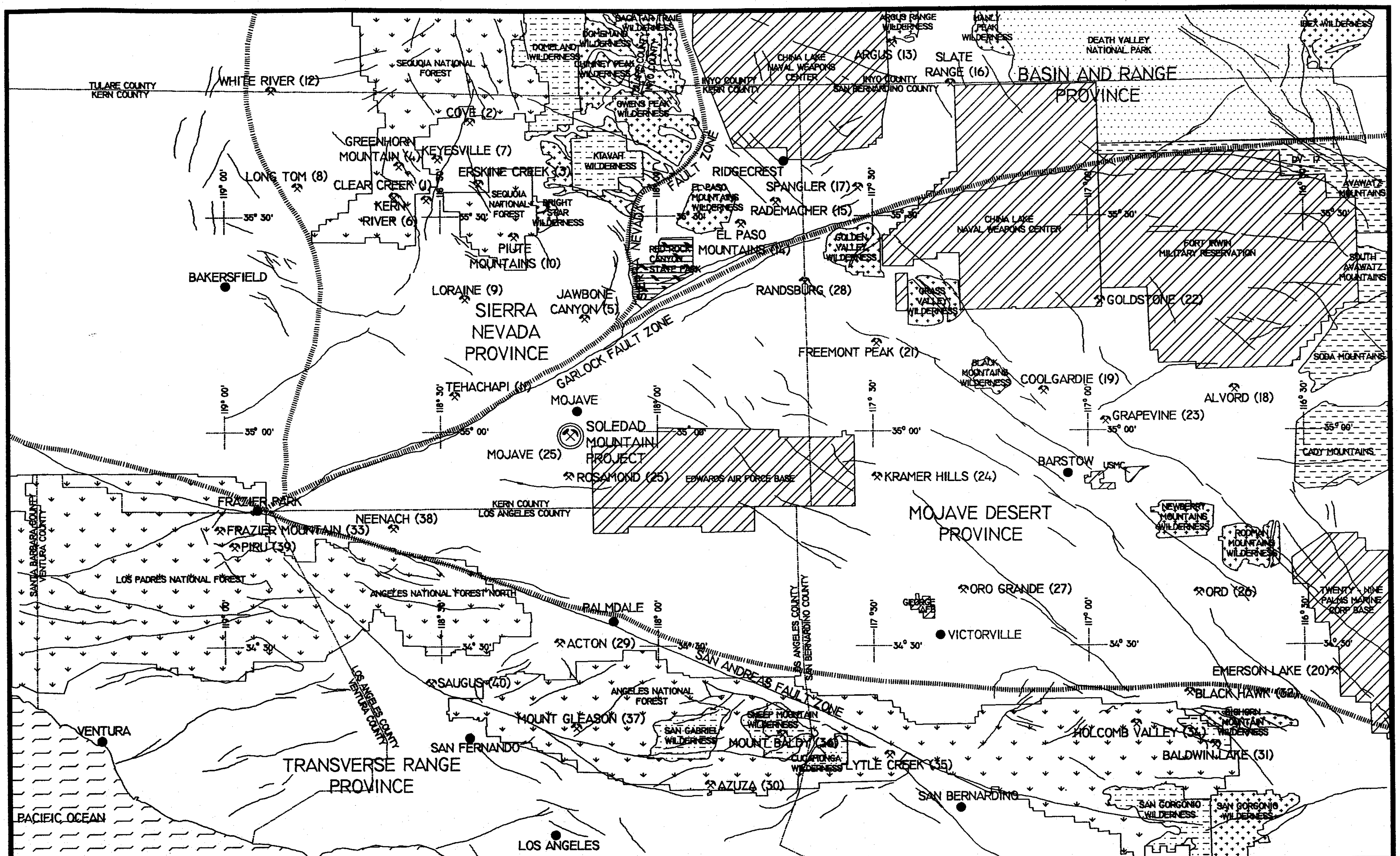


WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY INC.

REGIONAL LOCATION MAP

DATE 11/95	0733.0010A	EXHIBIT 1



MINING DISTRICTS

SIERRA NEVADA PROVINCE

1- CLEAR CREEK
2- COVE
3- ERSKINE CREEK
4- GREENHORNE MOUNTAIN
5- JAWBONE CANYON
6- KERN RIVER
7- KEYESVILLE
8- LONG TOM
9- LORAINE
10- PIUTE MOUNTAINS
11- TEHACHAPI
12- WHITE RIVER

BASIN AND RANGE PROVINCE

13- ARGUS
14- EL PASO MOUNTAINS
15- RADEMACHER
16- SLATE RANGE
17- SPANGLER

MOJAVE DESERT PROVINCE

18- ALVORD
19- COOLGARDIE
20- EMERSON LAKE
21- FREEMONT PEAK
22- GOLDSTONE
23- GRAPEVINE
24- KRAMER HILLS
25- MOJAVE-ROSAMOND
26- ORD
27- ORO GRANDE
28- RANDSBURG

TRANSVERSE AND PENNINSULAR RANGES PROVINCES

29- ACTON
30- AZUZA
31- BALDWIN LAKE
32- BLACK HAWK
33- FRAZIER MOUNTAIN
34- HOLCOMB VALLEY
35- LYTLE CREEK
36- MOUNT BALDY
37- MOUNT GLEASON
38- NEENACH
39- PIRU
40- SAUGUS

LEGEND

- CITY
- MINING DISTRICT AND NUMBER
- SOLEDAD MOUNTAIN PROJECT LOCATION
- COUNTY LINE
- PROVINCE BOUNDARIES
- SURFACE FAULT TRACE
- US BUREAU OF LAND MANAGMENT WILDERNESS STUDY LANDS
- US BUREAU OF LAND MANAGEMENT WILDERNESS LANDS
- FEDERAL MILITARY LANDS
- NATIONAL PARK SERVICE LANDS
- CALIFORNIA STATE PARK LANDS
- US FOREST SERVICE ADMINISTRATED LANDS
- US FOREST SERVICE WILDERNESS LANDS

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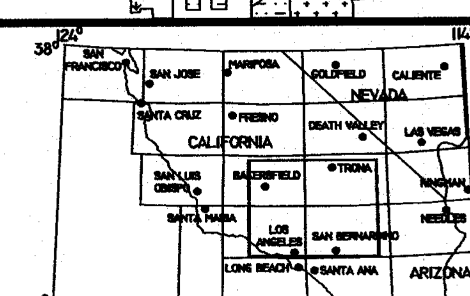

WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY, INC
SOLEDAD MOUNTAIN PROJECT
MAP OF GEOLOGIC STRUCTURAL ELEMENTS, GOLD PRODUCING DISTRICTS, AND PUBLIC LANDS

DATE 3/97	0733.0010	EXHIBIT 2

TABLES

<u>TABLE 1</u>

Tabulation of Significant Dates in the History of Gold Mining in California

1775-80	The first known discovery of gold in California was made in the Potholes district, Imperial County. Mining extended into the Cargo Muchacho and Picacho districts.
1835	The placer deposits in San Francisquito Canyon, Los Angeles County were discovered.
1842	Gold was discovered in Placerita Canyon, Los Angeles County. Some sources give the date of this discovery as 1841.
1851	Gold was discovered in Greenhorn Creek, Kern County. This discovery led to the rush to the upper Kern River Region.
1852	California's annual gold production reached an all time high of $81 million.
1853	The Fraser River rush in British Columbia caused a partial exodus of miners from the state.
1855	The rich surface placers were largely exhausted by this date, and river mining in the northern Sierra Nevada accounted for much of the state's output until the early 1860's. All of the rivers in the gold regions were mined.
1859	The Comstock silver rush began in Nevada. This development caused a large exodus of gold miners from California. However, it stimulated gold and silver prospecting in eastern and southeastern California, within the area of investigation.
1864	By this time California's gold rush had ended. The rich surface and river placers were largely exhausted; hydraulic mines were the chief sources of gold for the next 20 years.
1868	The first air drills were introduced. However, widespread use of air drills in mining did not come for another 30 years.
1883	Gold production figures began to be collected for the calendar year instead of the fiscal year.
1893	Gold was discovered in Goler Gulch in the El Paso Mountains in eastern Kern County. This led to other discoveries in the area and the influx to the Randsburg district, which began in 1895.
1916	The general prosperity that began during World War I and continued to 1929, with accompanying high costs, caused a decrease in gold output.

TABLE 1
Tabulation of Significant Dates in the History of Gold Mining in California

1929	Peak of post World War I boom. Lowest point in gold production since 1849.
1930	Gold production started to rise because of the depression and resulting low operating costs.
1933-35	The price of gold increased from $20.67 to $35 per fine ounce. This rise ultimately resulted in a large increase in gold output and in much greater exploration activities.
1940	Gold output totaled nearly $51 million. This was the most valuable annual output since 1856. Thousands of miners were employed in the quartz mines at Grass Valley, Alleghany, Nevada City, Jackson, Sutter Creek, Jamestown, Mojave, and French Gulch districts. There were many active bucket-line dredges, and dragline dredges became important producers of placer gold.
1942	World War II caused a precipitous drop in gold output. War Production Board Limitation Order L-208, issued on October 8, caused the gold mines to be shut down.
1944	Gold production touched the lowest point since 1848.
1945	Order L-208 was lifted, effective July 1. Some of the bucket-line dredges resumed operations, but only a few important lode mines at Grass Valley, Alleghany, and Sutter Creek were reopened. Production increased slightly for 4 years.
1950	Gold output resumed its decline because of rising costs and depletion of dredging ground. Lode belt, was shut down.
1960	Gold output fell below $5 million as the dredges continued to curtail operations.
1968	The U.S. Treasury suspended purchases of newly-mined gold. The free market price rose to $44 an ounce early in 1969, falling by November to $38.50, because of greater stability in international currencies.

Source: Clark, W. B., 1970, Gold Districts of California: California Division of Mines and Geology, Bulletin 193, p. 5-7.

TABLE 2
Principal Gold-Producing Districts within the Investigation Area

Map Number	Mining District	County	Location	Geology and Mineralization Summary	Principal Mines and Estimated Gold Production	Historical Operations	Land Status	Recent Exploration Activity
				Sierra Nevada Province Mining Districts				
1	Clear Creek	Kern	East-central Kern County; 26 miles east-northeast of Bakersfield; 5 miles south of Bodfish.	Gold deposits are mostly confined to a quartz diorite intrusive body. Ore bodies consist of quartz veins up to 6 feet thick, and contain free gold and some sulfides.	Friday; Jackpot; Joe Walker, $600,000; Porter; Rand group, $125,000; Rochfort; Southern Cross; Washington. Estimated 35,000 oz. produced.	Discovered in 1863; declined during the 1880's; intermittently active for many years afterward.	Adjacent to U.S. Forest Service administrated lands	Inactive
2	Cove	Kern	Northeastern Kern County, between Kernville and Isabella, on the west side of Lake Isabella.	Ore within extensive vein systems consisting of quartz with finely disseminated free gold, arsenophyrite, pyrite, chalcopyrite and galena.	The Big Blue Group; the Big Blue-Sumner Group; Lady Belle Group. Estimated 387,034 oz. produced.	Discovered in 1860; active until 1880's; intermittently active through 1930's; active 1934 through 1943.	Adjacent to U.S. Forest Service administrated lands	Inactive
3	Erskine Creek	Kern	38 miles northeast of Bakersfield, and south of Lake Isabella.	Ore deposits consist of quartz veins containing free gold and varying amounts of sulfides.	Glen Olive, $500,000; Iconoclast; Golden Bell; Laurel: Valley View; Faust; King Solomon. Estimated 24,189 oz. produced.	Gold deposits were productive in the early 1890's and intermittently afterward.	Adjacent to U.S. Forest Service administrated lands	Inactive
4	Greenhorn Mountain	Kern	28 miles northeast of Bakersfield.	Underlain by quartz diorite with several roof pendants comprised of Mesozoic or Paleozoic metamorphic rocks.	Greenhorn; Fremont; Bradshaw; Black Gulch. Estimated 1,000 to 5,000 oz. produced.	Discovered in Greenhorn Creek in 1851; activity declined before 1890, since then minor prospecting.	Within U.S. Forest Service administrated lands	Inactive
5	Jawbone Canyon	Kern	Encompasses area between Emerald Mountain and the El Paso Mountains.	Most gold occurrences are in gold-bearing quartz stringers cutting Cretaceous quartz monzonite.	Hub; Skyline; San Antonio. Estimated 1,000 to 5,000 oz. produced.	Placer gold discovered in 1900. Lode gold developed in the 1930's.	Within or adjacent to U.S. Bureau of Land Management lands	Recent exploration
6	Kern River	Kern	On the Upper Kern River, between Bakersfield and Bodfish.	Underlain by Mesozoic quartz diorite and associated aplitic and pegmatitic dikes.	Greenhorn Caves Mine, $60,000; Gem Mine, $30,000. Estimated 1,000 to 5,000 oz. produced.	Discovered at Greenhorn Creek in 1851. Early deposits worked in a short time.	In U.S. Forest Service administrated lands	Inactive
7	Keyesville	Kern	32 miles northeast of Bakersfield, and 2 miles southwest of Isabella Dam.	Gold deposits occur in a northeast trending belt 3 miles long that consists of narrow quartz stringers with fault gouge that contains free gold.	Bright Spot; High Grade; Homestake; Keyes, $450,000; Keyesville; Keyesville Placer; Mammoth. $500,000; Mooncastle; Nob Hill; Opportunity; Sunrise; Virginia: Will Jean. Estimated 45,960 oz. produced.	Discovered in 1852; chief periods of mining were the 1850's, 1860's, 1890's and 1909-1915. Some prospecting in 1930's, but little since.	Adjacent to U.S. Forest Service administrated lands	Inactive
8	Long Tom	Kern	Central Kern County, 23 miles northeast of Bakersfield and 10 miles south of Woody.	Underlain by quartz diorite with fracture zones containing small, gold-bearing quartz stringers with minor amounts of sulfides.	Long Tom Mine, $800,000-$900,000. Estimated 43,541 oz. produced.	Lode gold discovered in 1860.	Adjacent to U.S. Forest Service administrated lands	Inactive
9	Loraine	Kern	Central Kern County, near the town of Paris-Loraine.	Underlain by a roof pendant of slate and mica schist within quartz diorite and granodiorite. There are numerous quartz veins containing free gold and sulfides.	Amalie, $600,000; Barbarosa; Cowboy, $600,000; Deerhunter; Ella: Ferris; Golden Cross; Golden Peak; New Deal; Zenda, 34,000 oz. Estimated 92,055 oz. produced.	First prospected in 1850's; principal activity 1894 to 1912; active again in the 1920's and 1930's; intermittent prospecting since.	Adjacent to U.S. Forest Service administrated lands	Zenda Mine permitted, but inactive. Possible 100,000 oz. of gold reserve

TABLE 2
Principal Gold-Producing Districts within the Investigation Area

Map Number	Mining District	County	Location	Geology and Mineralization Summary	Principal Mines and Estimated Gold Production	Historical Operations	Land Status	Recent Exploration Activity
10	Piute Mountains	Kern	East-central Kern County, near Claraville, 14 miles southeast of Bodfish.	Underlain by Mesozoic granitic rocks with most gold deposits confined to a 2 mile wide belt consisting of gold-quartz veins in shear zones.	Amy; Blue Jay; Bright Star, $600,000; Dearborn; Donnie; French; Gold Standard; Gwynne, $770,000; Henry Ford; Hilltop; Jeanette-Grant; Jerry; Little Joe; Lone Star; Mary Ellen; Retreat; Shellenberger; Simon; Surprise. Estimated 66,279 oz. produced.	Discovered in 1850's; principal periods of mining during 1870 to 1900, and early 1930's and 1940's.	In U.S. Forest Service administrated lands	Inactive
11	Tehachapi	Kern	East-central Kern County, 4 miles south of Tehachapi.	Largley underlain by Cretaceous granites. Some gold in the district has been produced from shallow dipping, gold-bearing quartz veins cutting the granites.	Pine Tree Mine, $250,000. Estimated 12,094 oz. produced.	Most gold in the area is from Pine Tree Mine, active from 1876 to 1907.	Adjacent to U.S. Forest Service administrated lands	Inactive
12	White River	Kern	25 miles southeast of Porterville, in both southern Tulare and northern Kern Counties.	Underlain by Mesozoic granordiorite and small intrusive bodies of gabbro. A series of west-northwest trending quartz veins contain free gold and some pyrite.	Bald Mountain, $200,000 to $300,000; Eclipse No. 2; Josephine; Last Chance; Stencil. Estimated 36,284 oz. produced.	Discovered in 1853; mining continued until 1906 and there has been minor activity since.	Adjacent to U.S. Forest Service administrated lands	Inactive
BASIN AND RANGE PROVINCE MINING DISTRICTS								
13	Argus	Inyo	Southern Inyo County, 10 miles north of Trona.	Gold-quartz veins and silicified breccia in quartz monsonite and granodiorite.	Arondo, $200,000; Davenport; Mohawk Ruth, $700,000+. Estimated 43,541 oz. produced.	First mined in 1890's, much activity early 1900's and 1930's, some work up until present time	Near U.S. Bureau of Land Management Wilderness lands and China Lake Naval Weapons Center	Recent drilling has been conducted to evaluate a possible disseminated ore body
14	El Paso Mountains	Kern	Northeastern Kern County, 10 miles northwest Randsburg.	Placer-mining district. Auriferous sand and gravel in washes and canyons. Gold is mostly fine.	Last Chance; Red Rock; Jawbone Canyon; Summit Diggings. Estimated 1,000 to 10,000 oz. produced.	Gold discovered in Goler Wash in 1893, numerous dry wash camps established soon afterward, minor prospecting continues.	Near U.S. Bureau of Land Management Wilderness lands	Limited primarily to dry placer occurrences
15	Radamacher	Kern	Northeastern Kern County, 5 miles south of Ridgecrest.	Numerous thin gold-quartz veins in granite and schist. Veins often cut by dikes.	Bellflower; Crown Cons.; Gold Bug; Lost Keys; Prize; Rademacher; Yellow Treasure. Estimated 1,000 to 10,000 oz. produced.	Much activity 1890's, 1900's and 1930's, some activity since	Near U.S. Bureau of Land Management Wilderness lands	Inactive

TABLE 2
Principal Gold-Producing Districts within the Investigation Area

Map Number	Mining District	County	Location	Geology and Mineralization Summary	Principal Mines and Estimated Gold Production	Historical Operations	Land Status	Recent Exploration Activity
16	Slate Range	San Bernardino and Inyo	Northwestern San Bernardino and southern Inyo Counties.	Underlain by Cretaceous granite and Mesozoic schist. Quartz veins contain small, but rich gold- and silver bearing pockets, with abundant sulfides in areas.	Halford Mine. Estimated 1,000 to 5,000 oz. produced.		Near China Lake Naval Weapons Center	Inactive
17	Spangler	San Bernardino	Northwestern San Bernardino County, 10 miles northeast of Johannesburg.	Underlain by Mesozoic granitic rocks with west- striking gold-quartz veins.	Spangler; Stephens holding Mines; Saint Elmo Mine. Estimated 1,000 to 5,000 oz. produced.	Intermittently prospected since the 1890's.	Within or near U.S. Bureau of Land Management Wilderness lands	Inactive
MOJAVE DESERT PROVINCE MINING DISTRICTS								
18	Alvord	San Bernardino	Central San Bernardino County, 35 miles northeast of Daggett.	Underlain by Mesozoic granite and Paleozoic carbonates. Siliceous veins contain some sulfides, oxides, and gold.	Alvord Mine. Estimated 5,000 to 20,000 oz. produced.	Discovered in 1855, and has been intermittently worked since.	Within or near U.S. Bureau of Land Management Wilderness lands	Inactive
19	Coolgardie	San Bernardino	Western San Bernardino County, 15 miles northwest of Barstow.	Underlain by Mesozoic granites with localized basic intrusives. Placer deposits are contained within Quaternary alluvium that is in the axis of a broad valley.	Cool Gardie Mining Company. Estimated 4,837 oz. produced.	Intermittently mined from 1900 to 1915.	Within or near U.S. Bureau of Land Management Wilderness lands and/or U.S. military reservation	Inactive
20	Emerson Lake	San Bernardino	Southern San Bernardino County, 25 miles northwest of Twentynine Palms.	Underlain by Mesozoic quartz monzonite intruded by basic bodies. Gold found in veins in small pendants of gneiss and granites near surface.	Emerson; Los Padre. Estimated 1,000 to 10,000 oz. produced.		Near Twentynine Palms Marine Corps Base and U.S. Bureau of Land Management Wilderness lands	Inactive
21	Fremont Peak	San Bernardino	18 miles southeast of the Randsburg district within San Bernardino County.	Underlain by Precambrian gneiss intruded by Cretaceous granites. Rhyolitic dikes are associated with the gold occurrences. Gold in quartz veins with pyrite and arsenopyrite.	Fremont Peak Mine (Gateway Mine). Estimated 10,000 to 25,000 oz. produced.		Within or near U.S. Bureau of Land Management Wilderness lands	Inactive

TABLE 2
Principal Gold-Producing Districts within the Investigation Area

Map Number	Mining District	County	Location	Geology and Mineralization Summary	Principal Mines and Estimated Gold Production	Historical Operations	Land Status	Recent Exploration Activity
22	Goldstone	San Bernardino	Northwestern San Bernardino County 35 miles north of Barstow.	Underlain by Mesozoic granites and large Paleozoic carbonates and siliceous shales. Gold in shallow quartz veins.	No named mines. Estimated 16,000 to 20,000 oz. produced.	Active in 1915 to 1918, in the 1920's and again just before World War II.	Part of Fort Irwin military reservation	Recent drilling has occurred. Since then, the U.S. government has removed it from public entry, and it is part of Fort Irwin military reservation
23	Grapevine	San Bernardino	Within the Paradise Mountains, 15 miles north of Barstow.	Underlain by Mesozoic granites intruded by Miocene andesitic volcanics and Tertiary hypabyssal intrusives. Quartz veins contain free gold.	Olympus Mine. Estimated 1,000 to 5,000 oz. produced.		Within or near U.S. Bureau of Land Management Wilderness lands	Inactive
24	Kramer Hills	San Bernardino	8 miles southeast of Kramer Junction in western San Bernardino County.	Cretaceous granites intrude Mesozoic metamorphic rocks. Dikes and irregular bodies of rhyodacite to rhyolite intrude these older rocks.	No named mines. Estimated 6,000 to 25,000 oz. produced.		Within or near U.S. Bureau of Land Management Wilderness lands	There has been recent drilling
25	Mojave-Rosamond	Kern	Southeastern Kern County, south of Mojave.	Ore deposits associated with five prominences, Soledad Mountain being most important. Extensive gold- and silver-bearing zones occur in breccia in rhyolite. Pyrite, galena, cerargyrite and argentite present. Some of the ore was rich.	Burton-Brite-Blank; Cactus Gold, $5,000,000+; Elephant, $200,000+; Excelsior; Golden Queen, $10,000,000+; Middle Butte, $150,000; Standard group, $3,500,000; Tropico, 114,000 ounces; Wegman; Yellow Dog, 5,800+ oz. Estimated 2.486 million oz. of ultimate production.	Gold discovered on Standard Hill in 1894, considerable activity until 1910, major activity 1931-1941, some activity since, Tropico mine is an historical museum.	Private and U.S. Bureau of Land Management administered lands	None other that the Soledad Mountain Project with 1.44 million oz.
26	Ord	San Bernardino	West-central San Bernardino County, 20 miles southeast of Barstow.	Numerous gold-quartz veins with copper and silver are found in granitic rocks that are associated with dikes.	Azucar; Black Butte; Cumberland; Elsie; Gold Banner; Gold Peak; Grandview; Lucky Strike; Ord. Estimated 1,000 to 10,000 oz. produced.	Named for Major General Ord of the U.S. Army, mining began in 1870 and continued through the 1930's, there has been prospecting since.	Within or near U.S. Bureau of Land Management Wilderness lands	Recent exploration to evaluate a possible gold-bearing porphyry copper

TABLE 2
Principal Gold-Producing Districts within the Investigation Area

Map Number	Mining District	County	Location	Geology and Mineralization Summary	Principal Mines and Estimated Gold Production	Historical Operations	Land Status	Recent Exploration Activity
27	Oro Grande	San Bernardino	Near the town of Oro Grande, 5 miles north of Victorville.	Underlain by schist, quartzite, limestone, dacite, rhyolite, latite, and quartz monzonite. Most gold is from narrow quartz veins and oxidized zones near the surface.	Apex; Branch; Carbonate; Dents Grandview Lode; Gold Bullion; Gold King; Oro Grande I and II; Sidewinder; Western. Estimated 1,000 to 5,000 oz. produced.	Active during 1880's, early 1900's, and again in 1930's.	Within or near U.S. Bureau of Land Management Wilderness lands	Inactive
28	Randsburg	Kern and San Bernardino	On Kern-San Bernardino County line at Randsburg.	Gold-silver-tungsten district. Also a placer district. Silicified breccia and veins occur in iron-stained mica schist. Tungsten veins occur in quartz monzonite.	Baltic; Big Dike, $200,000; Big Gold, $500,000; Black Hawk, $700,000; Buckboard, $500,000; Butte, $2,000,000; King Solomon, $500,000; Little Butte, $400,000; Sunshine, $1,060,000; Yellow Aster, $12,000,000; Kelly Silver Mine. Estimated 1.767 to 1.867 million oz. of ultimate recoverable gold.	Discovered at Goler Wash in 1893 led to "rush" in El Paso Mountains and here, large-scale gold mining 1895-1918, much silver mining after 1919, much activity 1930's, Tungsten mined during the wars, present prospecting and development work.	Within or near U.S. Bureau of Land Management Wilderness lands	None other than to support the ongoing Glamis Gold Ltd. operations
				TRANSVERSE RANGE PROVINCE MINING DISTRICTS				
29	Acton	Los Angeles	North-central Los Angeles County, 20 miles north of Los Angeles.	Underlain by Mesozoic quartz diorite, diorite and Precambrian schist. Gold deposits are in gold-quartz veins in faulted and fractured zones.	Buena Esperanza; Governor (New York), $1.5 million; Helene; Hi-Grade; Red Rover, $550,000; Puritan. Estimated 99,177 oz. produced.	Placer gold mined as early as 1834. Lode mining began in 1870's; productive until 1900; some mines active in 1930's and early 1940's. Intermittent prospecting since.	Adjacent to U.S. Forest Service administrated lands	Inactive
30	Azusa-Tujunga	Los Angeles	On the south flank of the San Gabriel Mountains, northeast of Los Angeles.	Underlain by Precambrian gneiss and granites upon which Quaternary alluvial deposits rest. Gold placers are produced from the alluvial deposits.	No named mines. Estimated 1,000 to 10,000 oz. produced.	Old placer district; recent sand/gravel operations.	Within U.S. Forest Service administrated lands	Inactive
31	Baldwin Lake	San Bernardino	Northern portion of San Bernardino Mountains, east of Baldwin Lake.	Underlain by Mesozoic mica schist and quartzite Paleozoic carbonates, and Cretaceous granites. Lode gold within irregular shapes quartz-calcite veins with free gold, scheelite, and sulfides.	Christie; Doble, $250,000 to $300,000; Erwin; Gem; Gold Hill; Hollie Ann; Lester; Log Cabin; Rose, $450,000 to $600,000; and Stewart. Estimated 43,511 oz. produced.	Placer gold found as early as 1800. Rose Mine active in 1860 and considerable activity in the 1890's and early 1900's. Doble Mine was active again in the 1930's and 1940's.	Within U.S. Forest Service administrated lands	Inactive

TABLE 2
Principal Gold-Producing Districts within the Investigation Area

Map Number	Mining District	County	Location	Geology and Mineralization Summary	Principal Mines and Estimated Gold Production	Historical Operations	Land Status	Recent Exploration Activity
32	Black Hawk	San Bernardino	Southwestern San Bernardino County, 30 miles northeast of the city of San Bernardino.	Underlain by Cretaceous granite, Mesozoic schist and gneiss, and Paleozoic limestone. A gold ore, hematite-bearing gouge occurs along a mineralized zone along a thrust-fault plane.	Santa Fe Group; Lester. Estimated 145,000 oz. produced.	The district was organized in 1870; the Santa Fe group was active in the 1890's, but activity was minor in the early 1900's. Santa Fe was reopened and operated from 1921 to 1940.	Within or near U.S. Bureau of Land Management Wilderness lands	Some recent exploration to evaluate potential low -grade disseminated gold deposits has occurred. No announced discovery
33	Frazier Mountain	Ventura	Northeast corner of Ventura County.	Underlain by granite, granodiorite, gneiss, and schist. Gold-quartz veins strike north and occur in shear zones within gneiss and schist.	Bunker Hill; Esperanza; Fairview; Frazier, $1 million; Gold Dust; Harris; Hess; Maule; Sibert; White Mule. Estimated 48,379 oz. produced.	First placer mined in the 1840's, the Frazier Mountain Mine was opened in 1865. Minor work has been done since.	Within U.S. Forest Service administrated lands	Inactive
34	Holcomb Valley	San Bernardino	North side of San Bernardino Mountains, just north of Big Bear Lake.	Underlain by Cretaceous quartz monzonite, surrounded by Paleozoic carbonates and metasediments. There is placer gold within the alluvium and lode gold in thin shear and fracture zones within the granitic rocks.	Wright; Harvey K; Osborne; Gold Button; Ozier; Green Lead. Estimated 102,171 oz. produced.	Placer gold discovered in 1860. It was extensively worked for a few years, with intermittent work since.	Within U.S. Forest Service administrated land	Inactive
35	Lytle Creek	San Bernardino	Southwestern San Bernardino County in the eastern San Gabriel Mountains.	Underlain by Cretaceous Pelona Schist and locally intruded by Tertiary granodiorite.	Estimated 1,000 to 10,000 oz. produced.	Placer mining started in the 1890's.	Within U.S. Forest Service administrated lands	Inactive
36	Mount Baldy	San Bernardino	Within the San Gabriel Mountains of eastern Los Angeles County.	Underlain by Mesozoic Pelona Schist and Mylonite of the Vincent Thrust that has been intruded by Tertiary granodiorite. Gold quartz veins occur in the schist and gneiss adjacent to the Vincent Thrust Fault.	Allison, $50,000; Baldora; Big Horn, $40,000; Eagle; Gold Dollar; Holly; Heaton; Native Son; Stanley; Zanteson. Estimated total gold resource of 986, 758 oz. produced.	Placer mining started in the 1840's. Lode gold mining occurred from 1903 to 1908 and then again in the 1930's.	Within U.S. Forest Service Wilderness lands	Siskon Gold has proven and probable reserves of 300,000 oz. and resource base of 540,000 oz.
37	Mount Gleason	Los Angeles	Northern Los Angeles County, 15 miles north of Pasadena.	Underlain by mesozoic granite that surrounds small pendants of schist. Lode gold within granite and some metamorphic rocks.	Los Padre; Mount Gleason. Estimated 1,000 to 10,000 oz. produced.	Lode and placer occurrences.	Within U.S. Forest Service administrated lands	Inactive

TABLE 2
Principal Gold-Producing Districts within the Investigation Area

Map Number	Mining District	County	Location	Geology and Mineralization Summary	Principal Mines and Estimated Gold Production	Historical Operations	Land Status	Recent Exploration Activity
38	Neenach	Los Angeles	Northern Los Angeles County, 20 miles west-northwest of Lancaster.	Underlain by Mesozoic quartz monzonite that is overlain by Tertiary sediments. Gold deposits occur in a contact zone between metasediments and quartz monzonite.	Riviera or Rogers-Gentry group. Estimated 9675 oz. produced.	Discovered in 1899 with bulk of production in 1935-1938. Intermittent mining since.	Private and U.S. Forest Service administrated lands	Inactive
39	Piru	Ventura	Northeastern Ventura County in the vicinity of Piru Creek.	Underlain by Precambrian gneiss. Placer gold deposits are in and adjacent to the upper part of Piru Creek.	Castaic, $160,000. Estimated 7,740 oz. produced.	Placer mining began in 1841. Small scale placer mining continued through the 1890's and again in the 1920's and 1930's.	Within U.S. Forest Service administrated lands	Inactive
40	Saugus	Los Angeles	Western San Gabriel Mountains in Los Angeles County near the towns of Newhall and Saugus.	Underlain by Recent and older Quaternary alluvium deposits which contain gold-bearing placer deposits.	No named mines. Estimated 4,837 oz. produced.	Discovered in the early 1800's, intermittently worked since.	Within U.S. Forest Service administrated lands	Inactive

Appendix V

GROUNDWATER SUPPLY EVALUATION

SOLEDAD MOUNTAIN PROJECT

December 1996

Prepared for:
Golden Queen Mining Company
2997 Desert Street, Suite 4
Post Office Box 878
Rosamond, California 93560-0878

Prepared by:
WZI Inc.
4700 Stockdale Highway, Suite 120
Bakersfield, California 93309

CERTIFIED ENGINEERING GEOLOGIST
JAMES ALLEN WAGGONER
No. 1818
Exp 3-31-99
STATE OF CALIFORNIA

James Allen Waggoner
Certified Engineering Geologist
State of California No. 1818
Expiration Date: 03/31/99

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APPENDIX

I. INTRODUCTION

This report is a summary of an evaluation of the groundwater supply potential of the water well(s) drilled and proposed to be utilized by Golden Queen Mining Company for supplying up to 750 gallons per minute (gpm) of water during the open pit mining and heap leach gold processing operation proposed on Soledad Mountain, in eastern Kern County, near the town of Mojave. It is anticipated that an estimated maximum mining rate of 6 million tons per year will require the maximum water use rate of 750 gpm for ten years. The evaluation includes review of several available reports, data previously prepared for Golden Queen, and test data gathered from the first water supply well drilled and completed in October, 1996.

II. EXISTING WELLS

Wells in the immediate area of interest just north of Soledad Mountain generally have been drilled for the purpose of supplying residential water and thus are completed with small pumps necessary to supply only 20 to 40 gallons per minute. Nearby wells have been reviewed for aquifer characteristics based on available well log information and reported groundwater levels. A summary of existing water well data is included as Exhibit 1, and well locations are shown in Exhibit 2.

A well, known as the Gillis well, located 1 to 1.5 miles west of the proposed water wells project in Section 36, Township 11 North, Range 13 West, reportedly tested at rates of 750 to 900 gpm. This well is shown as well #25 on the well location map, and is located in an area where the alluvium is greater than 630 feet thick with thickness of the unconfined aquifer between 250 and 350 feet. Other wells a few miles north and west of Soledad Mountain reportedly tested at rates of 300 gpm or more. Mojave Public Utility District wells (wells #31 and #32) in Section 22, Township 11 North, Range 12 West tested at rates from 250 to 1,000 gpm.

The groundwater elevation map constructed from 1990 groundwater data, Exhibit 3, shows a gradient generally from west to east, with a southeast gradient on the north side of the project site. Hydrographs were prepared on a number of wells to show the change in groundwater elevation over time (Exhibits 4 - 6). The groundwater table has dropped one-quarter to one-half a foot per year over the last 18 years. The groundwater table appears to be slightly impacted by the rainfall with periods of higher rainfall showing minimal drawdown and drought periods exhibiting higher drawdown. Exhibit 7 shows rainfall totals by year at Mojave.

Water wells in the Jameson Ranch area, located approximately 4 miles northeast of Soledad Mountain, were used to provide water for alfalfa farming from approximately 1959 through 1971. Information on the Jameson Ranch wells was obtained from "Perennial Yield Assessment of Chaffee Subunit in the Fremont Valley Groundwater Basin"[1]. The wells are reported to have had average withdrawal rates of approximately 2500 gallons per minute during the time they were in operation. Groundwater elevations for well #26J1 (ref. 34 on Exhibit 1) located in Section 26, Township 11 North, Range 12 West in the Jameson Ranch Area from 1955 through 1987 are plotted versus time in a hydrograph on Exhibit 8.

III. AQUIFER CHARACTERISTICS

Actual groundwater elevations over time can be used along with known parameters to determine aquifer characteristics for evaluation of a projected well performance. The Jameson Ranch well was used as representative of the aquifer because it had similar reservoir thickness and because it had good records with both drawdown and recovery periods.

The Jameson Ranch well #26J1 is located approximately 6200 feet from the center of the area affected by the pumping as shown in Exhibit 9 prepared by Slade (1994) using 1970 groundwater levels. General aquifer characteristics were calculated based on

[1] Slade, R.C., 1994, Perennial Yield Assessment of Chaffee Subunit in the Fremont Valley Groundwater Basin, Richard C. Slade & Associates, Report.

analysis of the drawdown and recovery of the groundwater table from 1959 to 1987. Starting assumptions used in this analysis include porosity of the formation equal to 30 percent, permeability 5.0 darcies, water viscosity 0.9 centipoise, formation compressibility 5.0 x 10^{-5}, aquifer thickness 190 feet. These values were used in the following equations relating to producing rate, porosity, permeability, thickness, and compressibility to estimate drawdown and rebound at points in time equivalent to the known measurements. By using an iterative process (changing one variable to see the effect then changing another), it is possible to determine a set of parameters which approximate the aquifer characteristics. The parameters used in this analysis are listed after the equations. A list of terms used in the equation is attached as Appendix A. Using the two equations[2],

$$r_e = \sqrt{\frac{kt}{0.04\mu c\varphi}}$$

and

$$p_e - p = \frac{q\mu B_o \ln\frac{r_e}{r}}{7.08kh}$$

Known and derived parameters:

k =	permeability, 5.4 darcies
t =	time, years
μ =	viscosity, 0.9 cp
c =	compressibility, 5.0 x 10^{-5}
ϕ =	porosity, 0.32
q =	flow rate, 1500 gpm net pumping rate
B_0 =	formation volume factor, 1.0
r =	radial distance at the time step analyzed
h =	aquifer thickness, 175 feet
p =	pressure, psi (aquifer pressure at the pump depth)

[2] Craft, B.C., and Hawkins, M.F., 1959, "Applied Petroleum Reservoir Engineering," pp. 284 & 289, Prentice-Hall Inc., Englewood Cliffs, NJ.

it is possible to compare the actual depth to groundwater information against the calculated depth over time and thereby determine the combination of aquifer parameters which best match the historical data. The known and derived parameters shown above were used in the final analysis. Exhibit 10 shows the groundwater level versus time for the actual data as well as a plot for the projected data.

IV. WATER PRODUCTION WELL PW #1

In October, 1996, Golden Queen drilled a water well, PW #1, in Section 31, Township 11 North, Range 12 West to a depth of 300 feet. The water level just prior to a pump test was measured at 176.6 feet below the ground surface. On October 11, 1996 a step rate test was performed. The well was pumped at specified rates from 510 gpm to 700 gpm in four 20 minute intervals. Water level readings were taken at regular intervals and each step was allowed to stabilize prior to changing to the next rate. These data were input into the groundwater modeling program AQUIX-4S to determine aquifer characteristics. Using the Neuman equations[3] for calculating aquifer characteristics of an unconfined homogenous aquifer, a transmissivity of 2000 ft^2/day was established by an iterative process. Based on a saturated aquifer thickness of 140 feet, the permeability was calculated to be 5.87 darcies which compares reasonably well with the Jameson Ranch derived permeability of 5.4 darcies. Exhibit 11 shows the actual versus the expected drawdown over time for this test.

Analysis of the pump test was also performed using a general multiple rate test analytical technique[4] which compares the pressure (equivalent to water depth) at a given time to the corresponding production rate to obtain a straight line whose slope is used to determine the reservoir permeability and reservoir height variables. The following terms are plotted:

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[3] Neuman, S.P., 1975, Analysis of pumping test data from anisotropic unconfined aquifers considering delayed gravity response: Water Resources Research, v. 11, N. 2, pp 329-342.

[4] Robert C. Earlougher, Jr., 1977, "Advances in Well Test Analysis," pp. 31+, Millet the Printer, Inc., Dallas, Texas.

$$\frac{p_i - p_{wf}}{q_N} \, vs \sum \left[\frac{(q_j - q_{j-1})}{q_N} \log(t - t_{j-1})\right]$$

A list of terms used in the equation is attached as Appendix A. The slope of a line drawn through the points generated at the various times and flow rates can be used in the following equation to determine the permeability of the formation.

$$k = \frac{162.6 B\mu}{m' h}$$

Exhibit 12 shows this plot, where two different slopes are apparent. The early time data results in a lower permeability (1.7 darcies) compared to the later data which calculates an estimate of 5.2 darcies. This difference may be explained by near wellbore cleanup which may have occurred in the early time at the lower flow rates.

Applying the same equations used for analysis of the Jameson Ranch aquifer drawdown and recovery data to the pump test data and allowing for the multiple production rates, a plot was made showing the actual water level from the test as well as the projected level resulting from various combinations of input parameters. The best fit evaluated used 5.4 darcies of permeability and 135 feet of interval. Since the screened interval of PW #1 is approximately 115 feet, the correlation is good. Exhibit 13 shows the results of this analysis.

V. PROJECTED WATER AVAILABILITY

Golden Queen projects needing water for operations for up to 10 years at an approximate average rate of 750 gpm. Long term aquifer response was evaluated using the aquifer characteristics obtained above and applying them to well PW #1. Drawdown at the well was projected for either one, two, or three wells separated by 1,000 feet with each well providing an equal proportion of the 750 gpm total. Exhibit 14 shows the drawdown at different distances from the well at different points in time assuming the aquifer is infinite. This is a conservative calculation which assumes a recharge and perennial yield of zero.

Assuming the thickness of the aquifer approximates the well penetration of the saturated zone of 135 feet at the location of PW #1, a single well producing 750 gallons per minute would have a drawdown of 121 feet in only 90 days. This rate could not be sustained because the fluid level would be at the bottom of the well. If all three wells are operated at 250 gallons per minute each, the drawdown is 64 feet in 90 days and reaches 83 feet in 10 years. Exhibit 15 shows the drawdown versus time at a center well for one, two, or three wells. Thus, it appears likely that three wells will be required, which are sufficient to provide enough water throughout the entire project life.

VI. IMPACT ON NEARBY WELLS

The nearest active well (Well #11) is located in Section 12, Township 11 North, Range 12 West and is approximately 3,700 feet west of the water supply well PW #1. It is a domestic supply well and tested 40 gpm, the capacity of the installed pump. At Well #11, the depth to water is 215 feet and total depth is 350 feet, making the effective thickness of the water bearing formation 135 feet. Drawdown based on analysis of the Jameson Ranch area as well as the results from the Golden Queen well (PW #1) can be calculated at this well. Conservatively, the impact on Well #11 of producing 750 gpm from the Golden Queen wells would be to increase its drawdown by 20 feet initially, increasing to 39 feet after 10 years. The greatest drawdown will occur initially but will decrease to approximately 1.5 feet per year after the first year. While this may require lowering the pump, the withdrawal rate should not be impacted. Increased pumping costs associated with a worst case groundwater elevation could be approximately $0.025 per 1000 gallons. It is anticipated that drawdown may actually be less than calculated if aquifer recharge is taken into account.

By project design, water levels in Golden Queen's water production wells and existing monitoring wells will be monitored annually to determine impacts from the pumping and/or water table fluctuations. Although total annual withdrawal and recharge rates from the basin are unavailable, it is considered unlikely that an additional 750 gpm withdrawal will have a significant impact on the water balance in the basin. Even if this represented a 50% increase in basin withdrawals, the indicated trend of the water table would only increase from one-half foot per year to three-quarters foot per year, or 15 feet in 20 years.

VII. GROUNDWATER/WATER SUPPLY UNDER ALTERNATIVE SCENARIOS

The groundwater usage requirements for Golden Queen and impacts upon the aquifer and surrounding wells will vary depending upon the ore mining and processing rate. Water requirements for the agglomeration and leaching processes vary in direct proportion to the quantity of ore processed. Water used for dust control on the roads and within the crushing process is more closely related to the number of operating hours.

Increased Mining & Processing Rates - Under this scenario, mining and processing rates would increase by 20%. This alternative would require water to be pumped from wells at higher rates, but for a shorter time period than the Proposed Action. The cumulative project requirements for water over the life of the project would be approximately 8% less than the Proposed Action.

The estimated well pumping rate for this alternative is 825 gallons per minute with a project life of 8.33 years to mine and process the ore. Exhibit 16 shows the drawdown versus time at the central well for one, two, or three wells pumping a combined total of 825 gallons per minute. The maximum projected drawdown at the producing wells would be 90 feet which is about 9% greater than the maximum projected under the Proposed Action which is a negative short term impact. The long term impact would be slightly positive as a result of the lower cumulative water requirement.

Decreased Mining and Processing Rates - Under this scenario, mining and processing rates would decrease by 20%. This alternative would require water to be pumped from wells at lower rates, but for a longer time period than the Proposed Action. The cumulative project requirements for water over the life of the project would be approximately 12% more than the Proposed Action.

The estimated well pumping rate for this alternative is 675 gallons per minute with a project life of 12.5 years to mine and process the ore. Exhibit 17 shows the drawdown versus time at the central well for one, two, or three wells pumping a combined total of 675 gallons per minute. The maximum projected drawdown at the water supply wells would be 76 feet which is about 9% less than the maximum projected under the Proposed Action which is a positive short term impact. The long term impact would be slightly negative as a result of the higher cumulative water requirement, but still **less than significant**.

Reduced Project Size - This alternative is a reduction of 70% from the Proposed Action in the amount of ore mined from 60 million tons to 17 million tons. This alternative would require water to be pumped from wells at the same rates as the Proposed Action, but for a shorter time period. The cumulative project requirements for water over the life of the project under this scenario are 70 percent less than the Proposed Action because of the much shorter project life.

The estimated well pumping rate for this alternative is 750 gallons per minute with a project life of 3 years to mine and process the ore. The drawdown versus time will be the same as under the Proposed Action with a much shorter life and therefore a lower cumulative drawdown. The long term impact would be positive as a result of the much lower cumulative water requirement.

VIII. REFERENCES

Craft, B.C. and Hawkins, M.F., 1959, "Applied Petroleum Reservoir Engineering," pp. 284 & 289, Prentice-Hall Inc., Englewood Cliffs, NJ.

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EXHIBITS

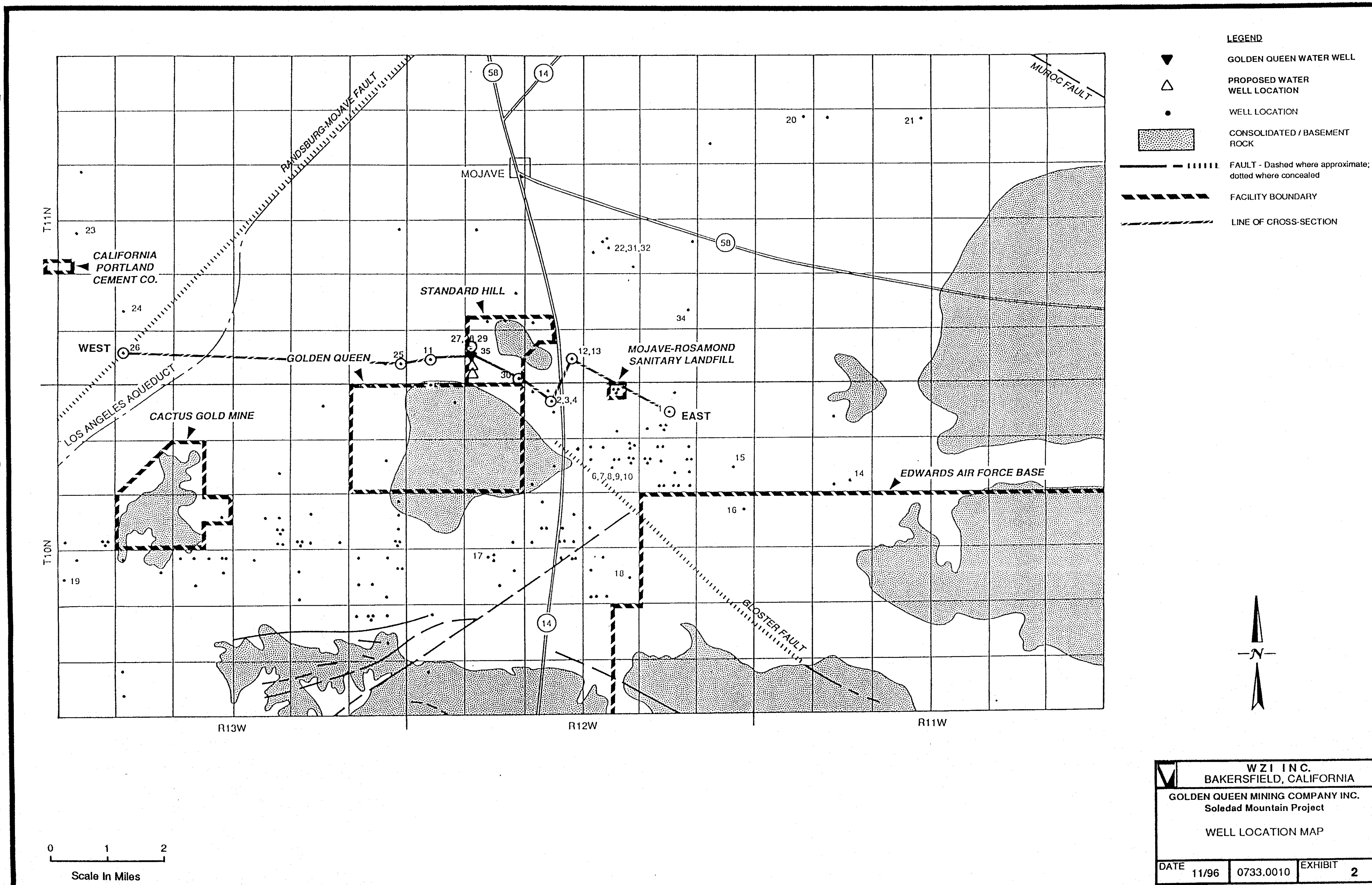
SUMMARY OF EXISTING WATER WELL DATA

REF NO.	LOCATION	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	REPORTED YIELD (GPM)	COMMENTS
1	T10N, R12W, SEC 2	257	187		TERMINATED ON "GRANITE"
2	T10N, R12W, SEC 4	340	135		TERMINATED ON "HARD ROCK"
3	T10N, R12W, SEC 4	275	175	3	
4	T10N, R12W, SEC 4	222	186	1	TERMINATED ON "HARD ROCK"
5	T10N, R12W, SEC 9	238	163	6	ALLUVIUM TOTAL DEPTH
6	T10N, R12W, SEC 10	200	87	30	ALLUVIUM TOTAL DEPTH
7	T10N, R12W, SEC 10	204	93	35	ALLUVIUM TOTAL DEPTH
8	T10N, R12W, SEC 10	202	93	35	
9	T10N, R12W, SEC 10	200	92	30	
10	T10N, R12W, SEC 10	200	85	25	
11	T11N, R12W, SEC 31	350	215	40	PUMP LIMITATION
12	T11N, R12W, SEC 33	240	175	FAIR	YIELD REPORTED AS "FAIR"
13	T11N, R12W, SEC 33	252	190		TERMINATED IN "BEDROCK"
14	T10N, R11W, SEC 8	280	58		
15	T10N, R12W, SEC 12	224	84		
16	T10N, R12W, SEC 13	185	60		
17	T10N, R12W, SEC 20		107		
18	T10N, R12W, SEC 22	242	43		
19	T10N, R13W, SEC 19	770	317		
20	T11N, R11W, SEC 7	414	209		
21	T11N, R11W, SEC 9	422	131		IN ALLUVIUM
22	T11N, R12W, SEC 22	350	247		
23	T11N, R13W, SEC 19	430	311		
24	T11N, R13W, SEC 29	749	307		IN ALLUVIUM
25	T11N, R13W, SEC 36	630	280 - 380	750	ALLUVIUM TOTAL DEPTH
26	T11N, R13W, SEC 32	300	180		TOP 50 FEET ALLUVIUM
27	T11N, R12W, SEC 32	300		40	
28	T11N, R12W, SEC 32	265	180	40	
29	T11N, R12W, SEC 32		176		
30	T11N, R12W, SEC 32	245	188		
31	T11N, R12W, SEC 22	350	260	250	MOJAVE P.U.D. WELL
32	T11N, R12W, SEC 22	348	270		"ROCK" AT TOTAL DEPTH
33	T11N, R12W, SEC 22	395	223	1000	MOJAVE P.U.D. WELL
34	T11N, R12W, SEC 26	230		200	FORMER JAMESON RANCH IRRIGATION WELL
35	T11N, R12W, SEC 32	300	177	700	NEW GOLDEN QUEEN WATER WELL

REVISED FROM WATER WASTE AND LAND, INC., 1990, HYDROLOGY STUDY SUMMARY FOR THE SOLEDAD MOUNTAIN PROJECT.

F:\CLIENTS\GOLDQUEN\WELLINFO.WQ2

BCJ 11/20/96

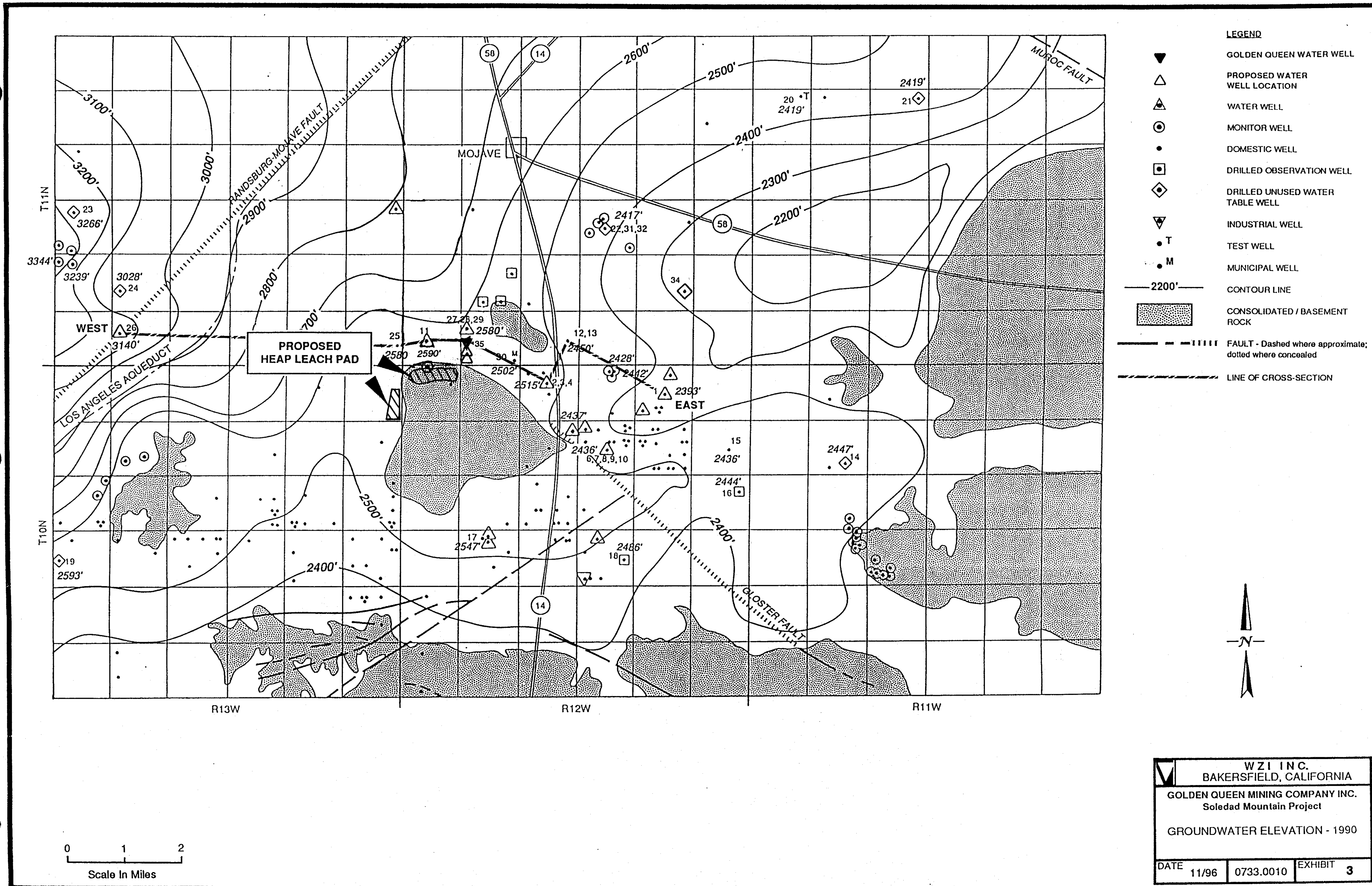


WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY INC.
Soledad Mountain Project

WELL LOCATION MAP

DATE		EXHIBIT
11/96	0733.0010	2



WZI INC.
BAKERSFIELD, CALIFORNIA

GOLDEN QUEEN MINING COMPANY INC.
Soledad Mountain Project

GROUNDWATER ELEVATION - 1990

DATE		EXHIBIT
11/96	0733.0010	3

HYDROGRAPH

10N/12W-12K1

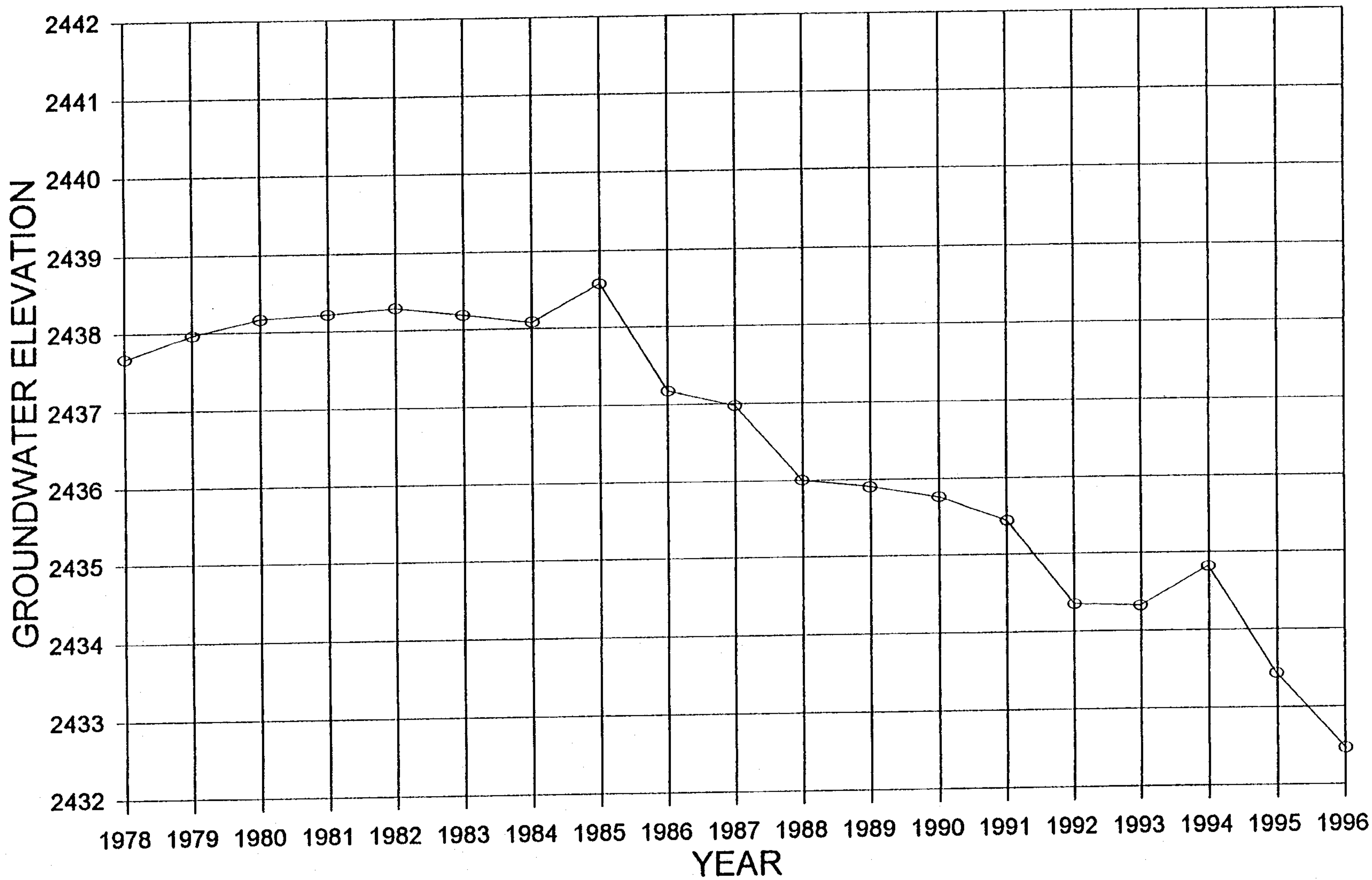


EXHIBIT 4
0733.0010

HYDROGRAPH

10N/12W-13H1

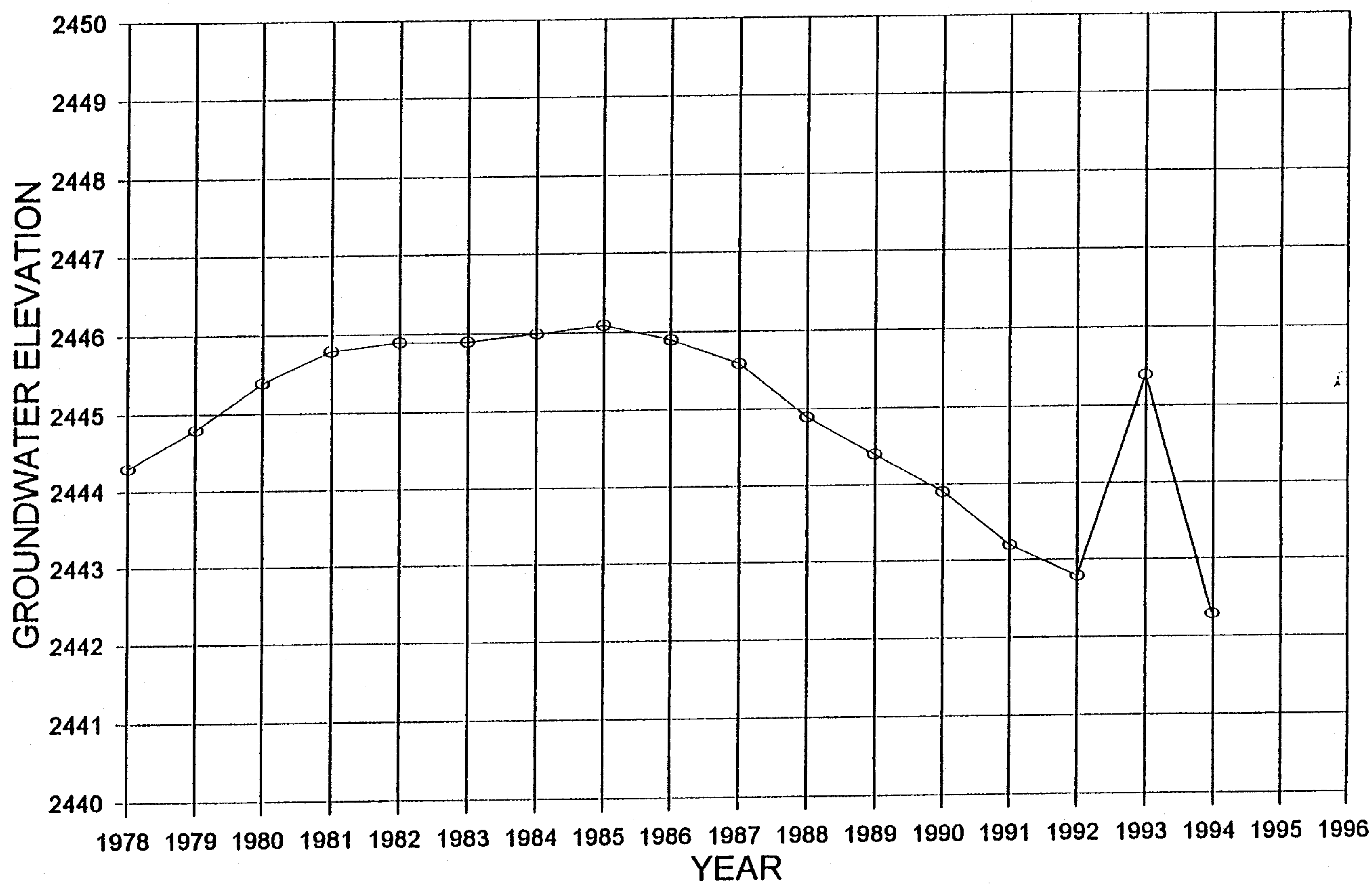


EXHIBIT 5
0733.0010

HYDROGRAPH
10N/12W-20C1

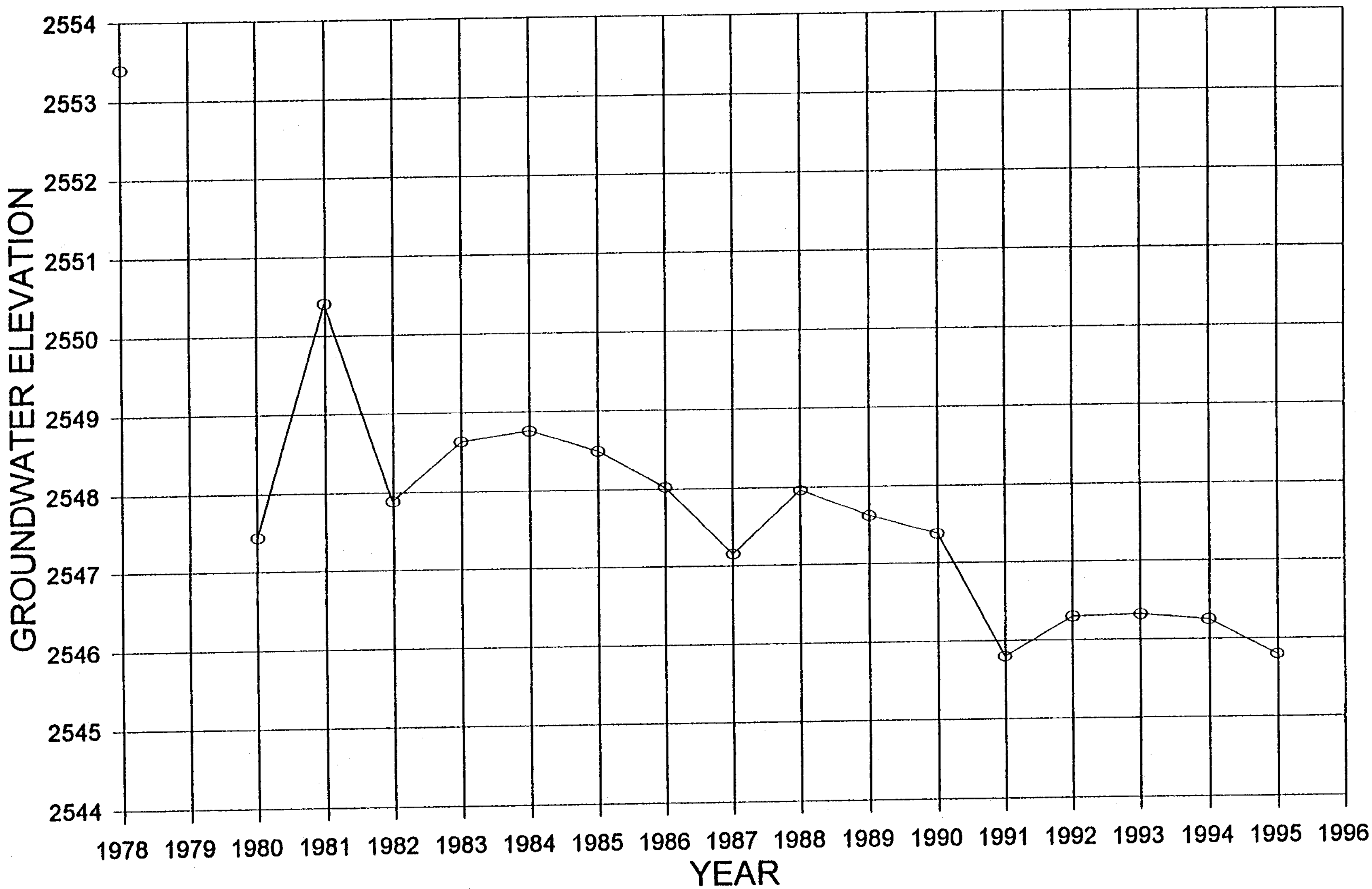


EXHIBIT 6
0733.0010

RAINFALL DATA, MOJAVE STATION NO. 45756

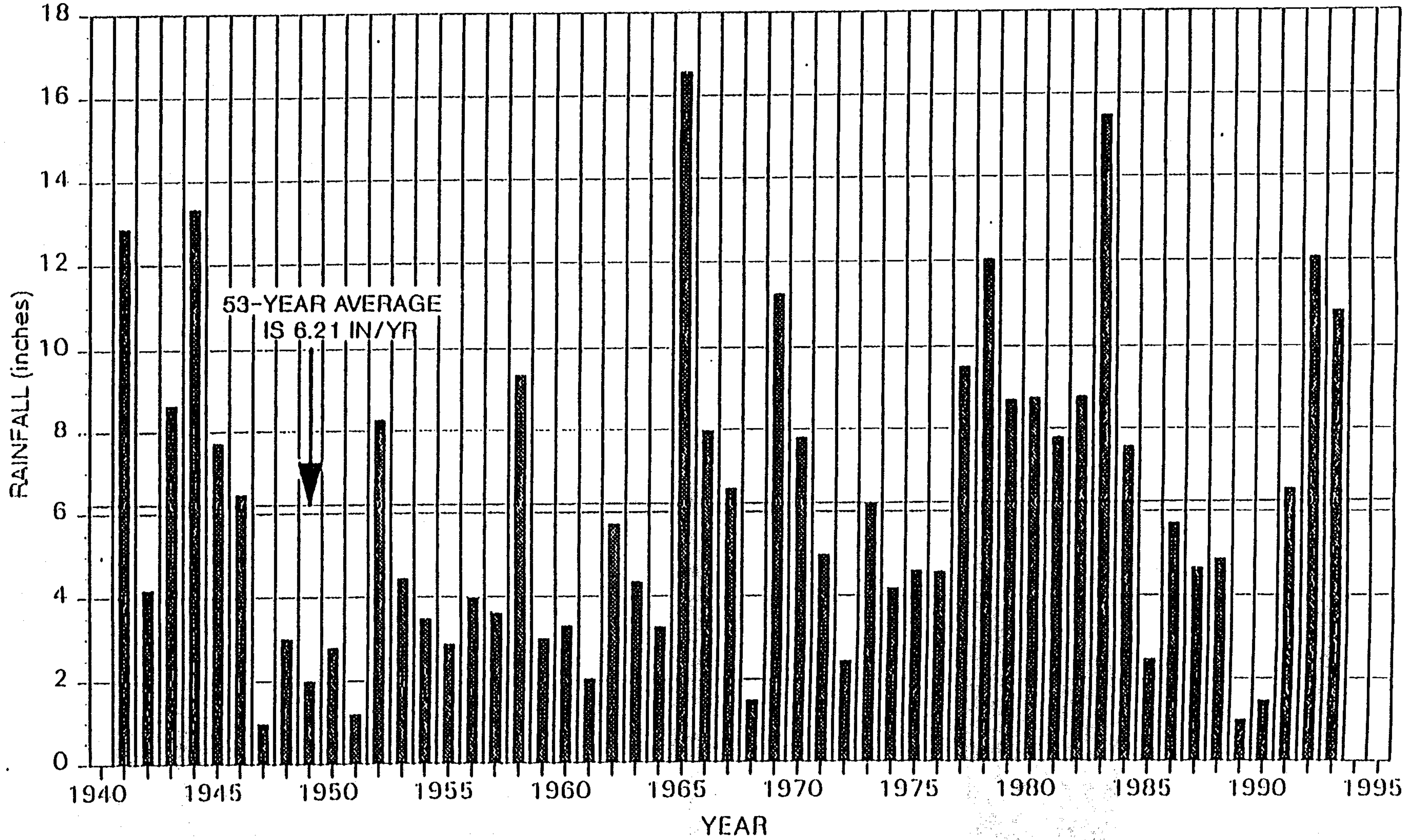


EXHIBIT 7
0733.0010

Groundwater - Jameson Ranch #26J1

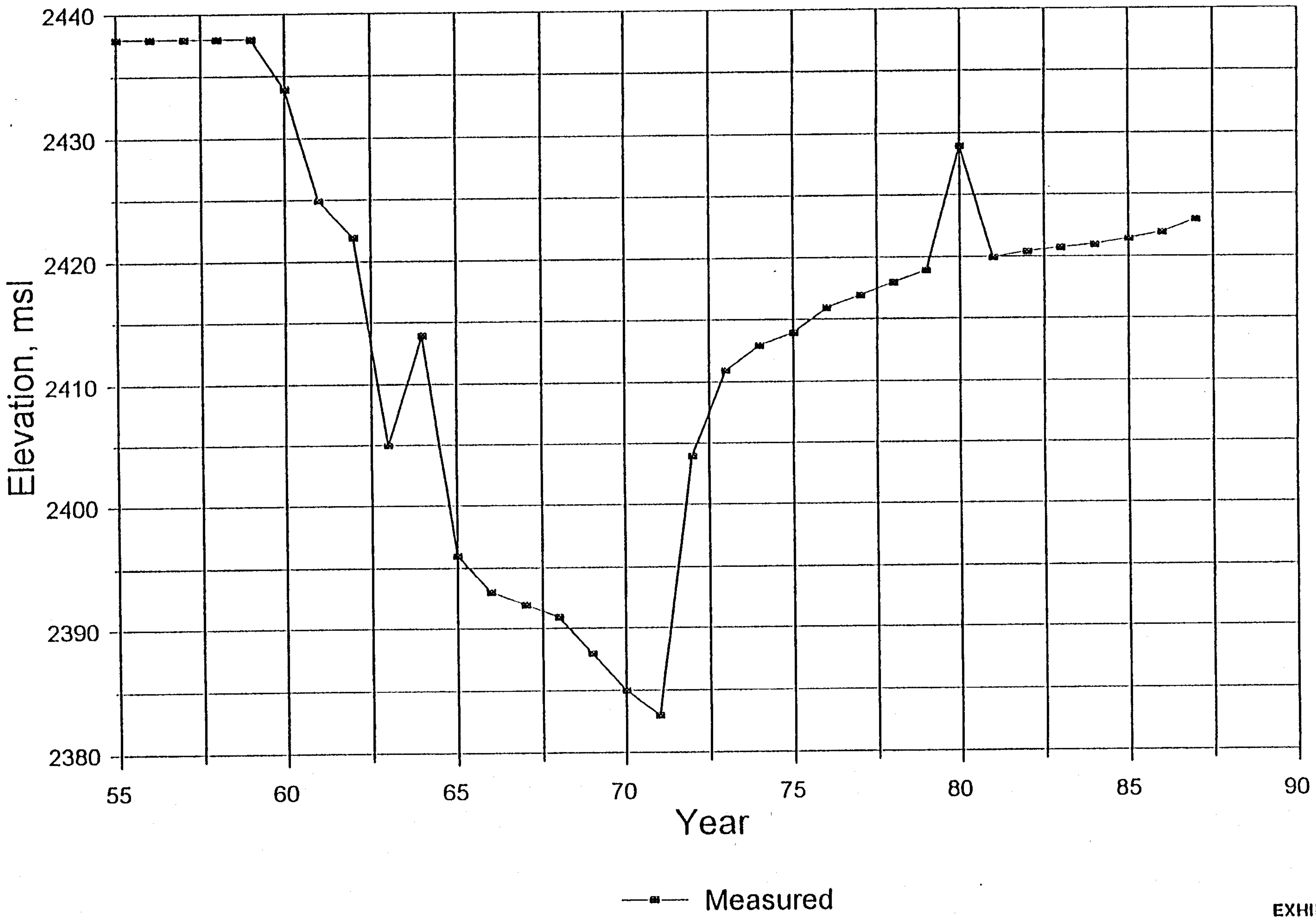


EXHIBIT 8
0733.0010

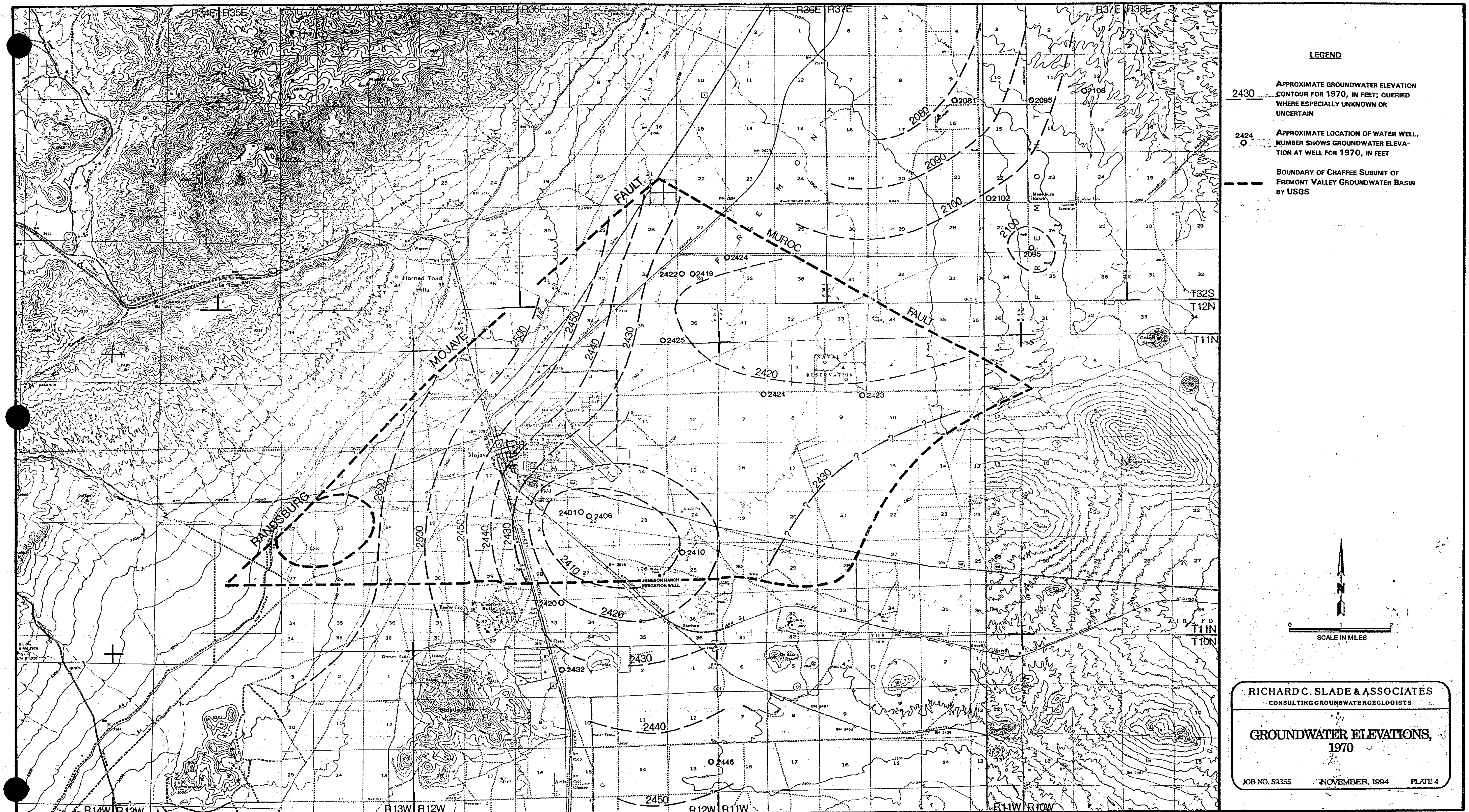


EXHIBIT 9
0733.0010

Projected Level - 11N/12W - 26J1

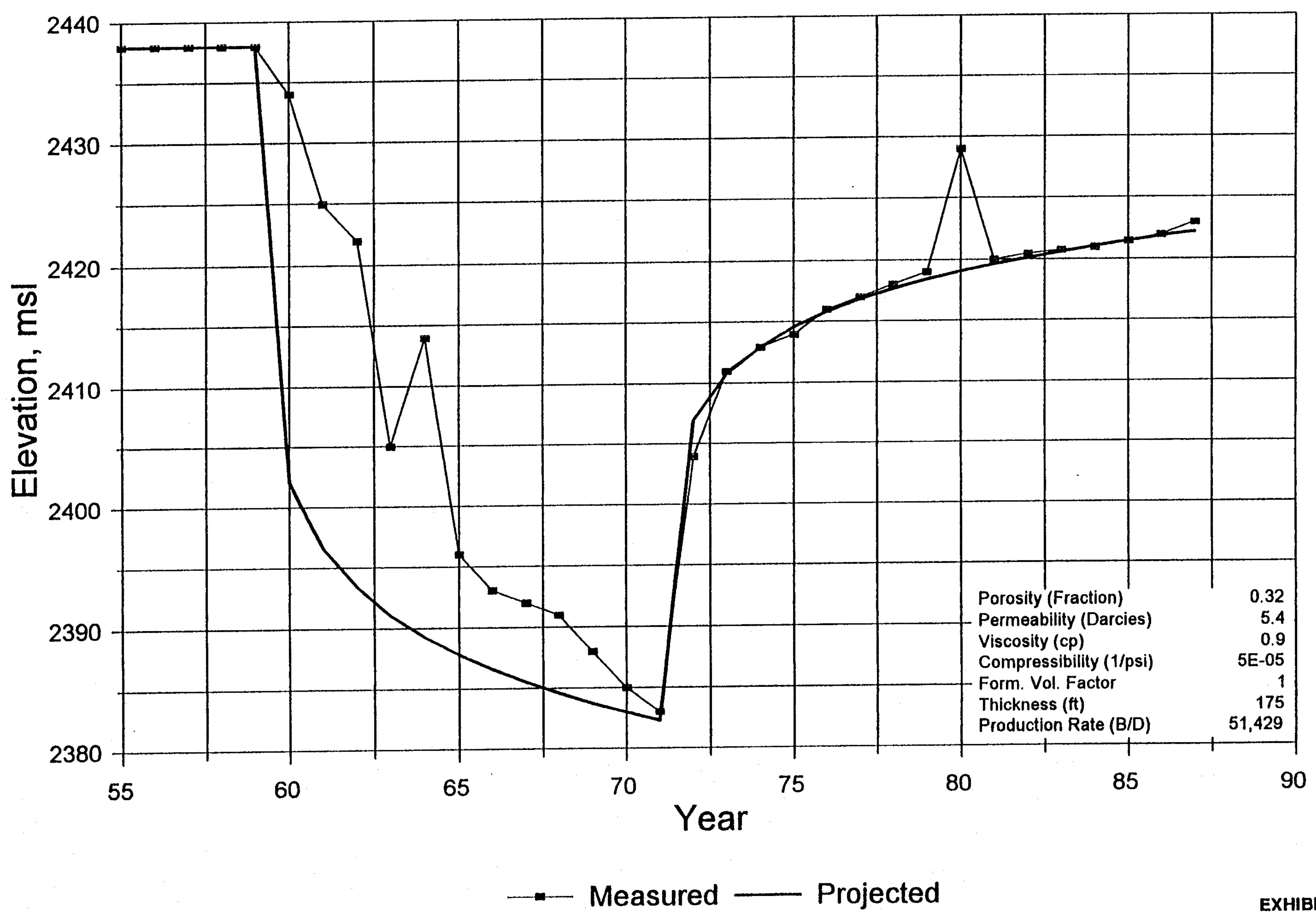


EXHIBIT 10
0733.0010

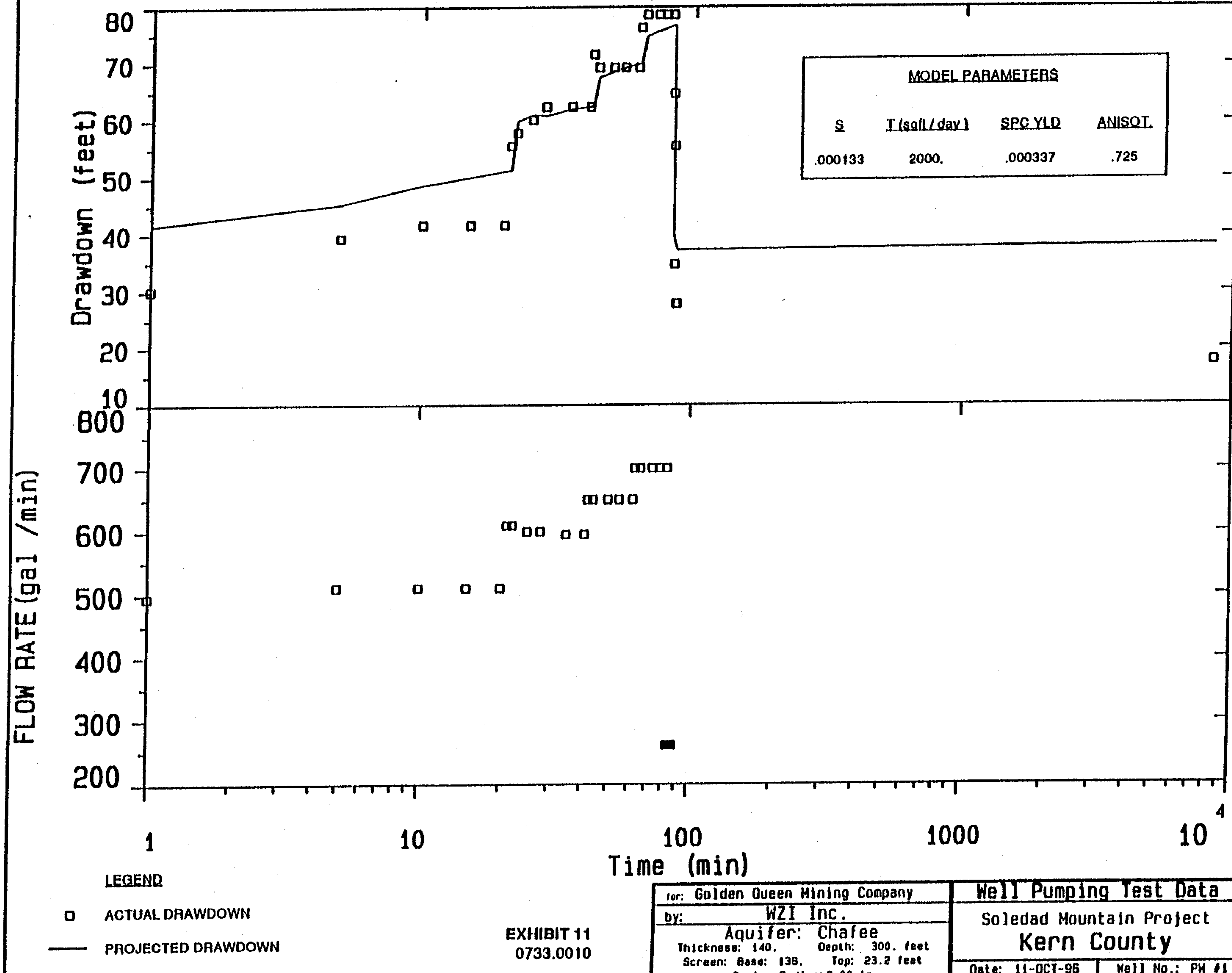


EXHIBIT 11
0733.0010

for: Golden Queen Mining Company	Well Pumping Test Data
by: WZI Inc.	Soledad Mountain Project
Aquifer: Chafee	Kern County
Thickness: 140. Depth: 300. feet	
Screen: Base: 138. Top: 23.2 feet	Date: 11-OCT-96
Casing Radius: 6.00 in	Well No.: PW #1

Multiple-Rate Testing Analysis

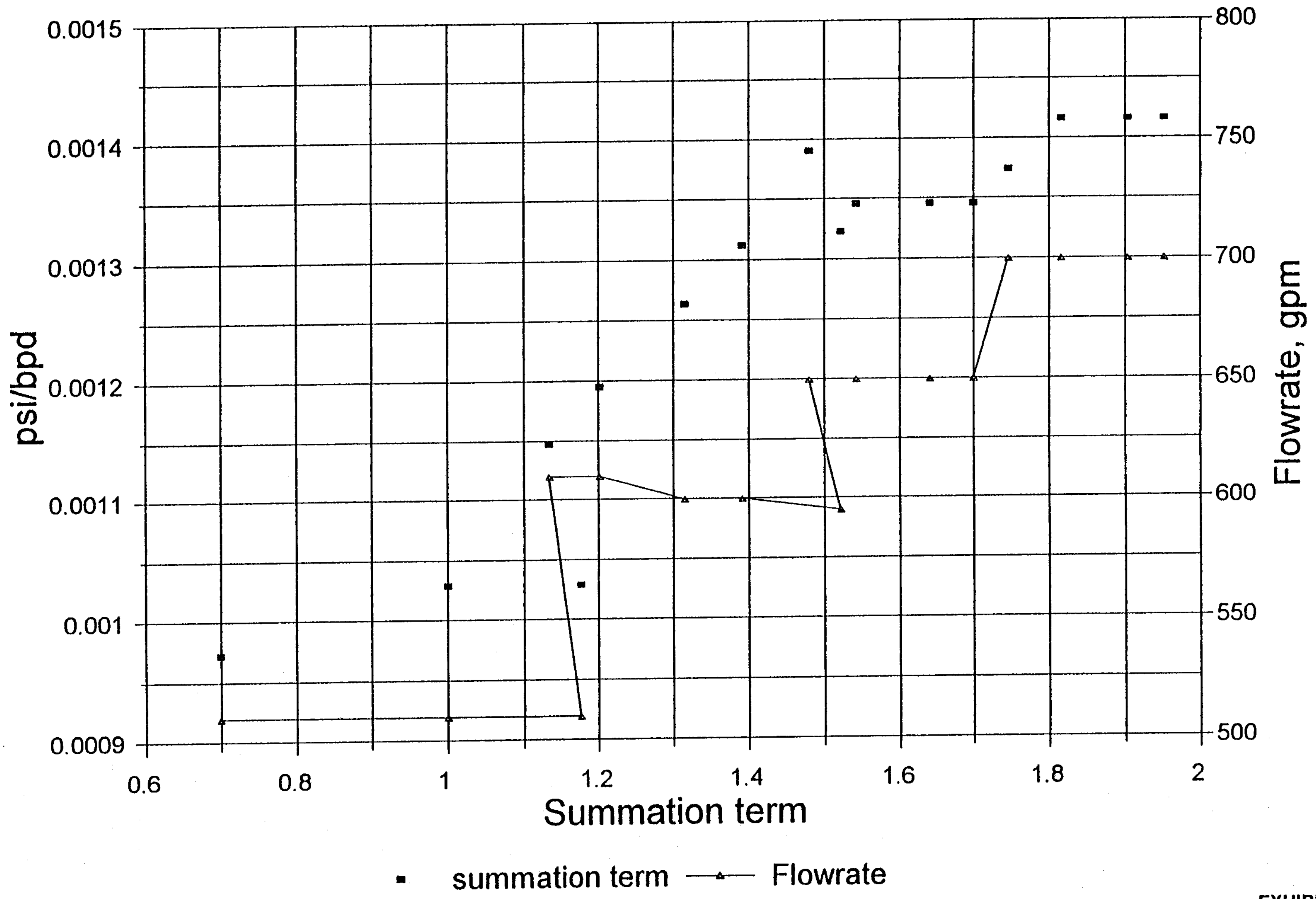


EXHIBIT 12
0733.0010

PRODUCTION WELL #1
WELL TEST ANALYSIS

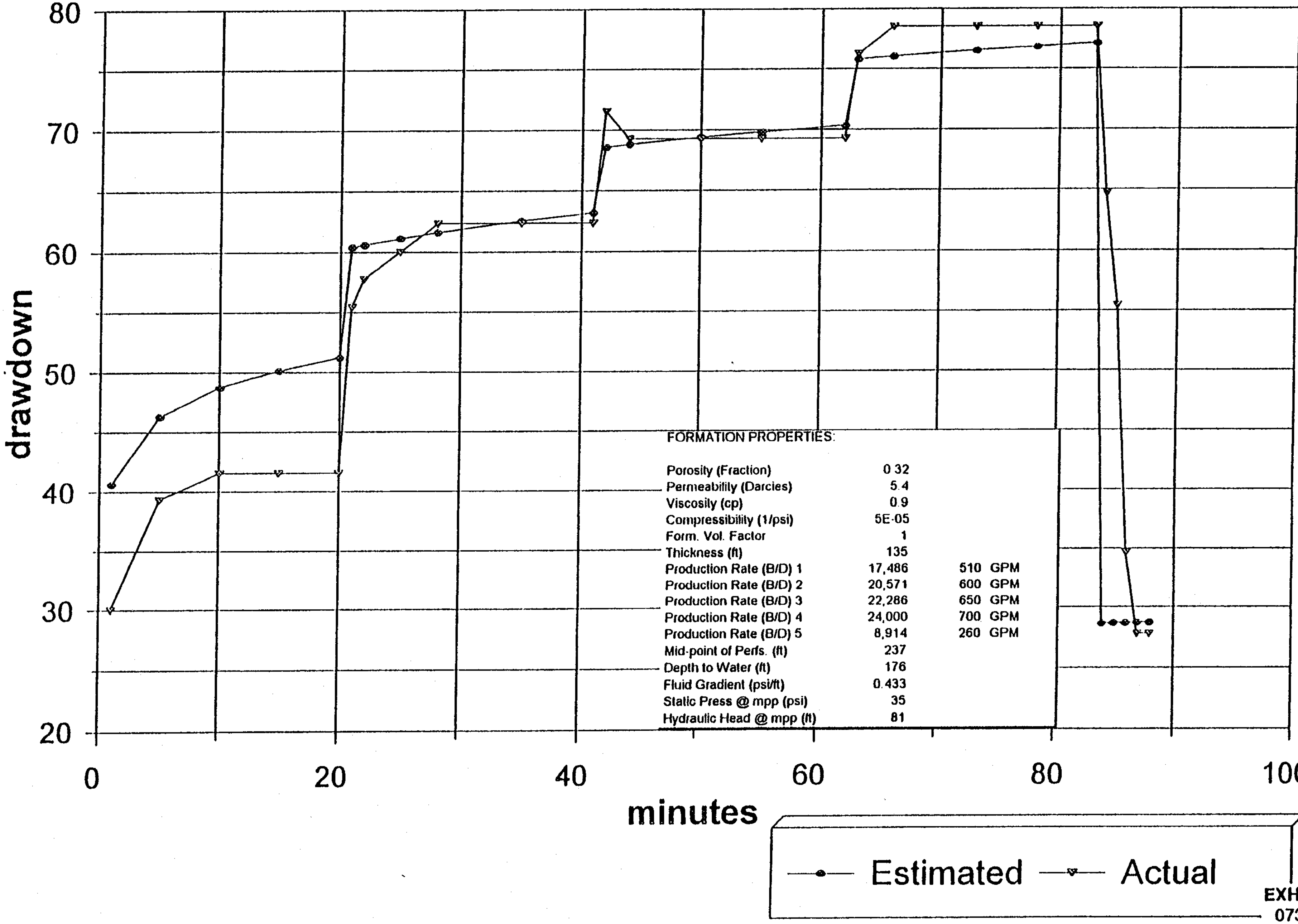


EXHIBIT 13
0733.0010

GOLDEN QUEEN
PRESSURE WAVE CALCULATION

	FORMATION PROPERTIES:		
0	Porosity (Fraction)	0.32	
k	Permeability (Darcies)	5.4	
u	Viscosity (cp)	0.9	
c	Compressibility (1/psi)	5E-05	
B	Form. Vol. Factor	1	
h	Thickness (ft)	135	
q	Production Rate (B/D)	25,714	750 GPM
	Two Wells each at	12,857	375 GPM
	Three Wells each at	8,571	250 GPM
	Distance between wells, ft	1,000	
mpp	Mid-point of Perfs. (ft)	238	
d	Depth to Water (ft)	176	
g	Fluid Gradient (psi/ft)	0.433	
pe	Static Press @ mpp (psi)	27	
H	Hydraulic Head @ mpp (ft)	61.5	

FORMULAE: (Craft and Hawkins, p.314)

re=[kt/(0.04uc0)]^1/2

pe-p=quBln(re/r)/(7.08kh)

dH PRESSURE WAVE (ft):

Time (yrs)	Radius (ft) 0.25	500	1000	2000	3700	5300	10000
750 GPM (RATE PER WELL)							
0.25	121	42	35				
1	128	49	42	35	29	25	18
3	134	55	48	41	34	31	24
5	136	58	50	43	37	33	27
10	140	61	54	47	41	37	30
12	141	62	55	48	41	38	31
15	142	63	56	49	43	39	32
375 GPM (Each)	2 wells	1000 ft apart - Combined Effect					
0.25	78	36	31	26	20	17	11
1	85	44	39	33	27	24	18
3	91	49	44	39	33	30	23
5	93	52	47	41	36	32	26
10	97	56	50	45	39	36	30
12	98	56	51	46	40	37	31
15	99	58	53	47	41	38	32
250 GPM (Each)	3 wells	1000 ft apart - Combined Effect					
0.25	64	35	30	25	20	16	10
1	71	42	37	32	27	24	18
3	76	47	43	38	33	29	23
5	79	50	46	40	35	32	26
10	83	54	49	44	39	36	30
12	84	55	50	45	40	37	30
15	85	56	51	46	41	38	32

GOLDQUEN\PWAVEGQ

Water Well Analysis
Golden Queen Well PW #1

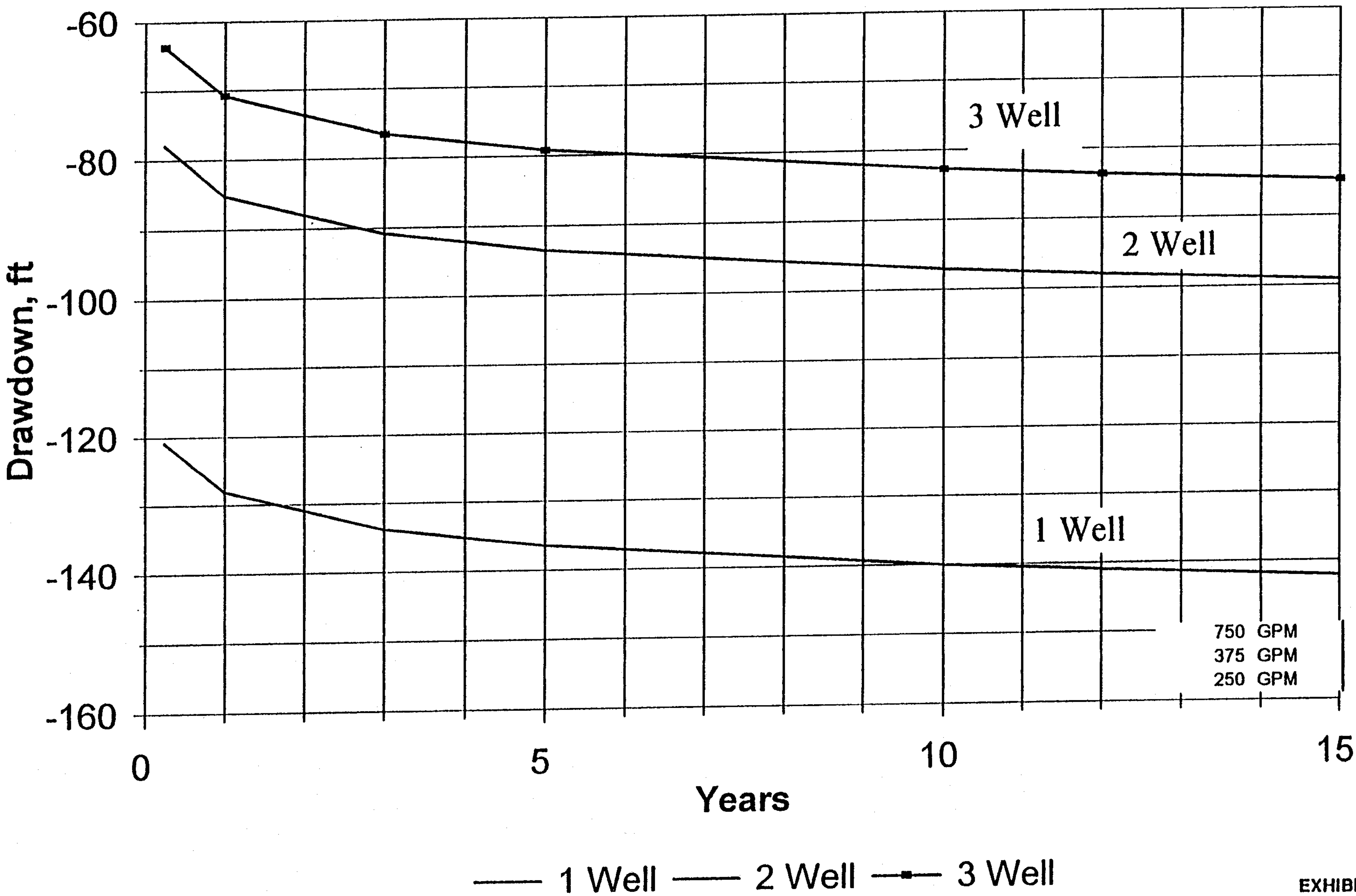


EXHIBIT 15
0733.0010

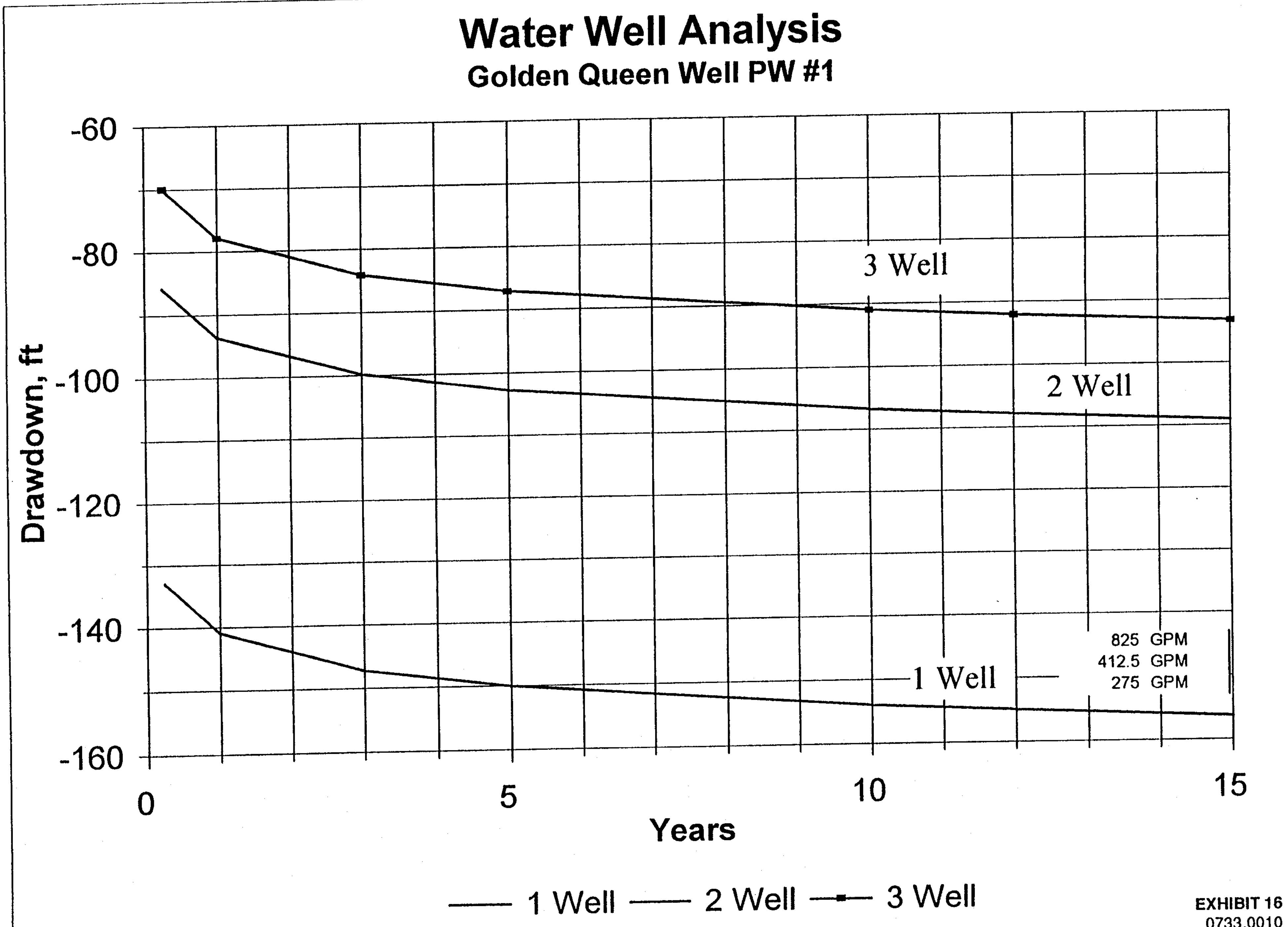


EXHIBIT 16
0733.0010

Water Well Analysis

Golden Queen Well PW #1

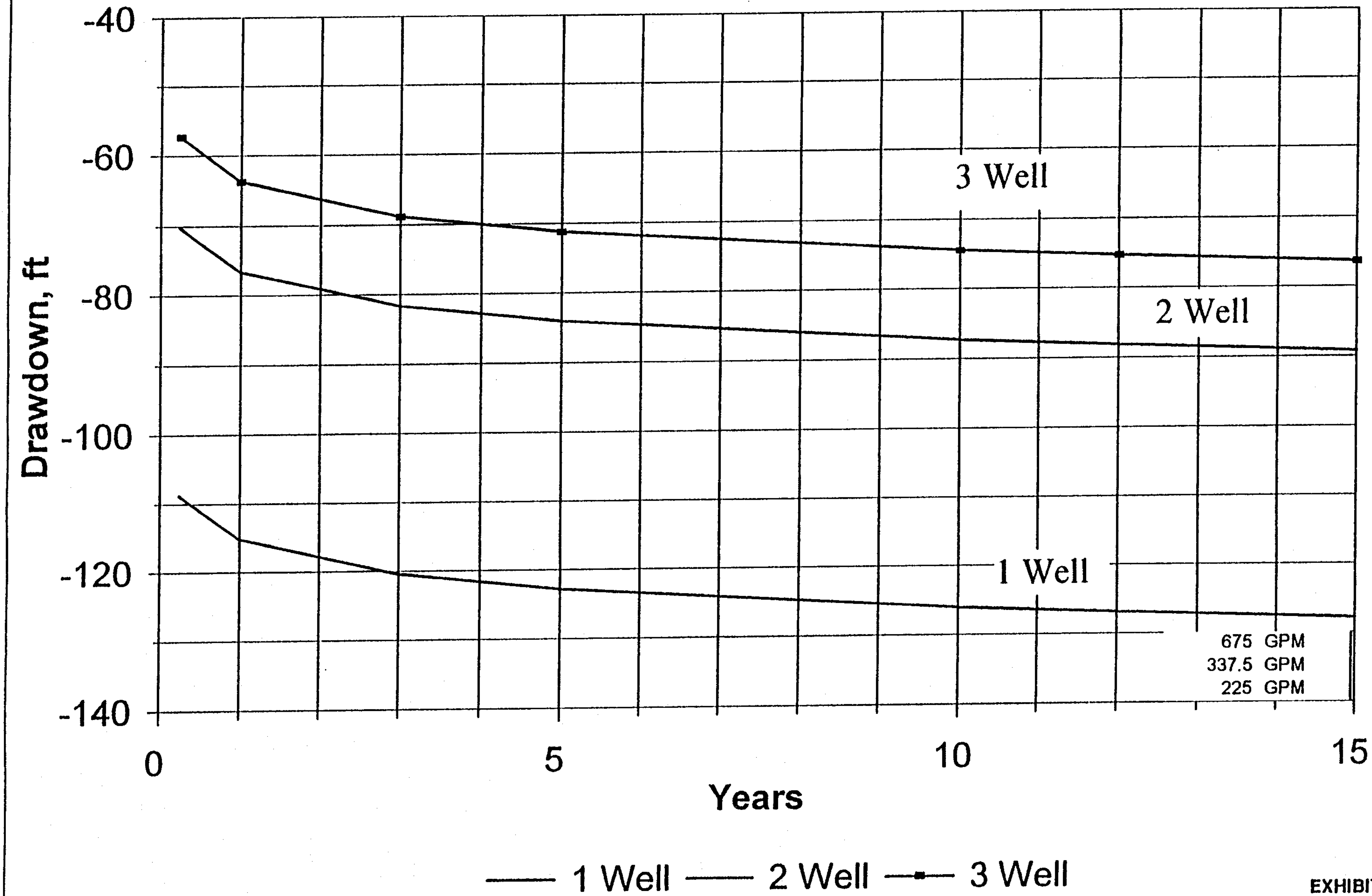


EXHIBIT 17
0733.0010

APPENDIX A

Nomenclature for Permeability calculations

r_e = external boundary radius

k = permeability

t = time

μ = viscosity

c = compressibility

ϕ = porosity

p_e = external boundary pressure

p = pressure

q = volumetric flow rate

B_o = formation volume factor

r = radial distance

h = height of aquifer

p_i = initial pressure

p_{wf} = flowing well pressure

q_N = flow rate at time N

q_j = flow rate at time j

q_{j-1} = flow rate at time j-1

m' = slope of line

HYDROLOGY STUDY SUMMARY

FOR THE SOLEDAD MOUNTAIN PROJECT

Prepared For:

P.M. DeDYCKER AND ASSOCIATES
12596 West Bayaud Avenue Suite 380
Lakewood, Colorado 80227

Prepared by:

WATER, WASTE & LAND, INC.
2629 Redwing Road, Suite 200
Fort Collins, Colorado 80526

July 1990

This document reviewed by WZI Inc. in support of the final Environmental Impact Report/Environmental Impact Statement for the Soledad Mountain Project, Mojave, Kern County, California.

James Allen Waggoner
Certified Engineering Geologist
State of California No. 1818
Expiration: 3/31/99

CERTIFIED ENGINEERING GEOLOGIST ★ STATE OF CALIFORNIA ★
JAMES ALLEN WAGGONER
No. 1818
Exp 3/31/99

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE OF REPORT

This report summarizes the results and conclusions from initial hydrologic studies for Noranda's Soledad Mountain Project in Kern County, California. This report was prepared upon your request, and is based on data collected by Water, Waste & Land, Inc. (WWL). This work consisted of data collection and review, and was conducted initially for Golden Queen Mining Company, Inc. (Golden Queen) and later for Noranda Inc. (Noranda), as outlined in the following section.

1.2 STUDIES CONDUCTED TO DATE

Initial work, consisting of data review, was conducted for Golden Queen according to the Phase I study outline prepared for Envirocon in September 1989. Phase I work, originally envisioned as the first of a three-phase study, consisted of review of available data, identification of water supply sources in the area, and preliminary characterization of the hydrology of the area.

A report describing the results of this study was prepared for Golden Queen Mining Company in October 1989. An important part of the planned data review could not be conducted because drillers logs and production information from over 30 wells in the site area were (by California regulations) confidential, and could not be obtained without written consent of the property owners.

Following Noranda's acquiring rights to assess the Soledad Mountain property in late 1989, WWL prepared a work scope for completion of Phase I studies and initiation of subsequent phases of hydrologic data collection for project water supply and waste disposal site monitoring. This work scope was prepared for Envirocon in December 1989, and was revised in March 1990 to include WWL personnel collecting private well information. A key task in this revised phase of work was assessing an existing well on land controlled by Golden Queen in Section 36, northwest of the project site.

In April 1990, WWL conducted a survey of wells in the project area to collect drillers logs and other pertinent well information through permission from landowners. Guidance on who to contact about well information was provided by Noranda site personnel. The results of this task were documented in a letter to Noranda dated April 26, 1990. This task provided very little published well information, although information from conversations with local residents provided some insight into the area geohydrology and water supply. The well in Section 36 was not found, and was believed to be destroyed during previous land development construction work.

Upon your request, WWL prepared a revised work scope for the next steps to be taken for mine development hydrology, based on the information collected in April. This work scope was prepared for P.M. DeDycker and Associates in May 1990.

2.0 SUMMARY OF EXISTING INFORMATION

2.1 EXISTING WELLS AND DRILLING INFORMATION

Available information about the geology and geohydrology of the Soledad Mountain area, and wells and water supplies used in the area was obtained from the following sources:

1. Reports and data collected by WWL during the site visits on August 8-9, 1989 and April 17-20, 1990, as well as communication with local residents.

2. Conversations with California state agency and Kern Water Agency personnel concerning well records and other public well data.

3. Conversations with Antelope Valley-East Kern Water Agency (AVEK), Kern County Water Agency, and Mojave Public Utilities District personnel concerning water supply information.

4. Conversation with CoCa Mines personnel about water supply information at the Middle Buttes and Shumake Mines (which are located west of the site).

The references and information obtained from these sources are listed in the references section of this report. Much of the published data was referenced in the geohydrology report prepared for the Shell Standard Hill Project (Rector, 1986).

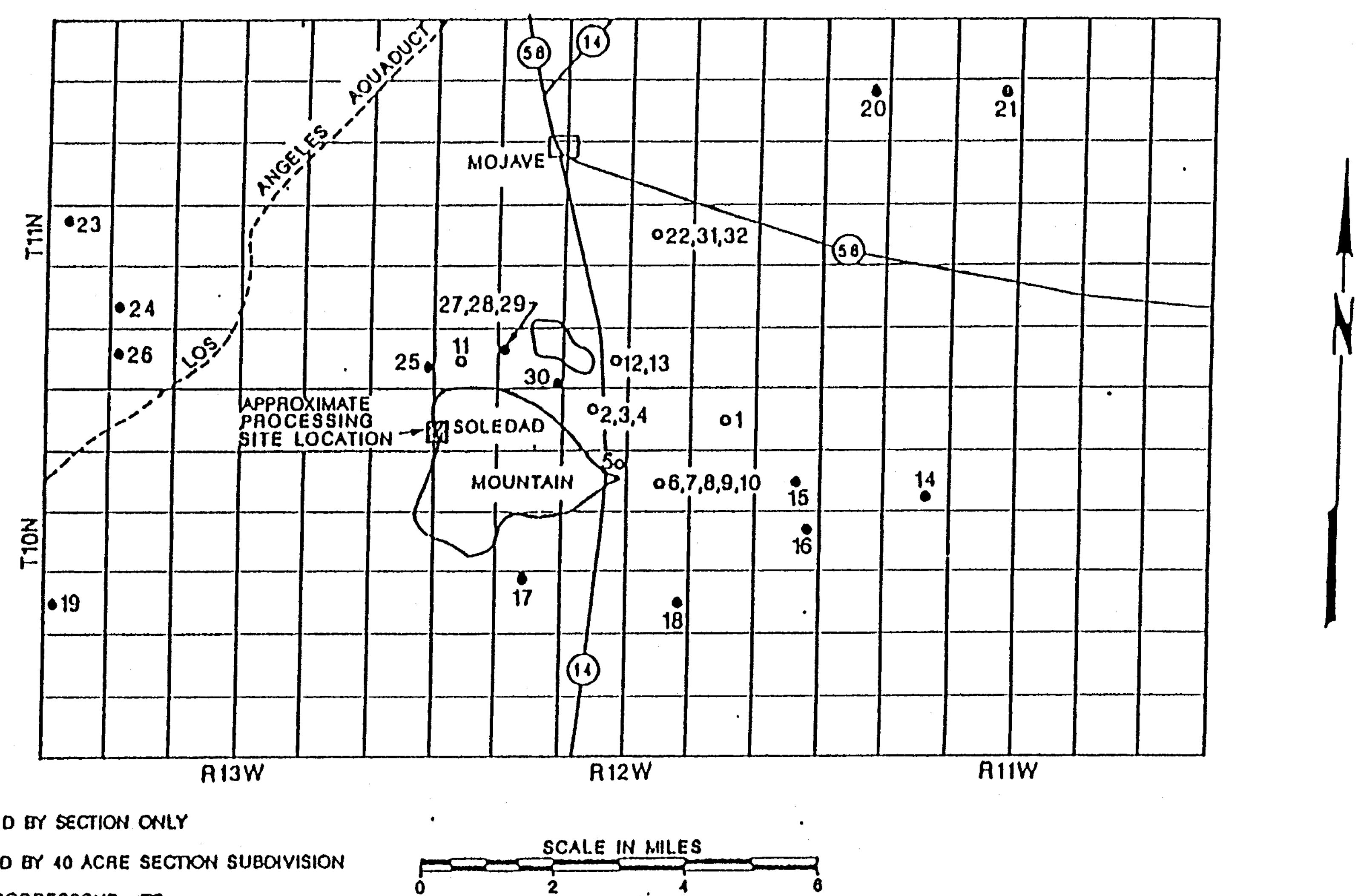
AVEK provided information on wells monitored by the United States Geologic Survey (USGS) for AVEK. In addition, AVEK provided preliminary information on the location of facilities, water service agreements, water rates, and rules and regulations for distribution of water. The Kern Water Agency provided limited information on a number of private wells in the area.

Table 1 is a summary of available information on existing water wells in the area from WWL's October 1989 report. The approximate locations of wells included in Table 1 are shown on Figure 1. This information was limited to published data or that obtained by personal communication. Collection of actual drilling logs of these wells was attempted in April 1990 through requests made to local landowners. This task yielded no published information, but conversations with landowners provided general information about geohydrologic conditions and water supply.

TABLE 1
SUMMARY OF EXISTING WATER WELL DATA

REF NO.	LOCATION	TOTAL DEPTH (ft)	DEPTH TO WATER (ft)	REPORTED YIELD (gpm)	INFORMATION SOURCE[1]	COMMENTS
1.	T10N, R12W, Sec. 2	257	187	-	B	Terminated on "Granite"
2.	T10N, R12W, Sec. 4	340	135	-	B	Terminated on "Hard Rock"
3.	T10N, R12W, Sec. 4	275	175	3	B	
4.	T10N, R12W, Sec. 4	222	186	1	B	Terminated on "Hard Rock"
5.	T10N, R12W, Sec. 9	238	163	6	B	Alluvium Total Depth
6.	T10N, R12W, Sec. 10	200	87	30	B	Alluvium Total Depth
7.	T10N, R12W, Sec. 10	204	93	35	B	Alluvium Total Depth
8.	T10N, R12W, Sec. 10	202	93	35	B	
9.	T10N, R12W, Sec. 10	200	92	30	B	
10.	T10N, R12W, Sec. 10	200	85	25	B	
11.	T11N, R12W, Sec. 31	350	95	30	B	
12.	T11N, R12W, Sec. 33	240	175	Fair	B	Yield Reported as "Fair"
13.	T11N, R12W, Sec. 33	252	190	-	B	Terminated in "Bedrock" owned by California Portland Cement Co.
14.	T10N, R11W, Sec. 8	280	58	-	A	
15.	T10N, R12W, Sec. 12	224	84	-	A	
16.	T10N, R12W, Sec. 13	185	60	-	A	
17.	T10N, R12W, Sec. 20	-	107	-	A	
18.	T10N, R12W, Sec. 22	242	43	-	A	
19.	T10N, R13W, Sec. 19	770	317	-	A	
20.	T11N, R11W, Sec. 7	414	209	-	A	
21.	T11N, R11W, Sec. 9	422	131	-	A	In Alluvium
22.	T11N, R12W, Sec. 22	350	247	-	A	
23.	T11N, R13W, Sec. 19	430	311	-	A	
24.	T11N, R13W, Sec. 29	749	307	-	A	In Alluvium
25.	T11N, R13W, Sec. 36	630	280-380	-	C	Alluvium Total Depth
26.	T11N, R13W, Sec. 32	300	180	-	C	Top 50 Feet Alluvium
27.	T11N, R12W, Sec. 32	300	-	40	C	
28.	T11N, R12W, Sec. 32	265	180	40	C	
29.	T11N, R12W, Sec. 32	-	176	-	C	
30.	T11N, R12W, Sec. 32	245	188	-	C	
31.	T11N, R12W, Sec. 22	381	255	-	C	Mojave P.U.D. Well
32.	T11N, R12W, Sec. 22	348	270	-	C	

[1]Information Source
A. U.S.G.S.
B. Kern Water Agency
C. Rector (1986)



● WELL LOCATED BY SECTION ONLY

o WELL LOCATED BY 40 ACRE SECTION SUBDIVISION

WELL NUMBERS CORRESPOND TO REFERENCE No. IN TABLE 1

Water, Waste & Land, Inc.

FIGURE 1

EXISTING WELL LOCATIONS

Date: OCT 1989

Project: 151

2.2 REGULATORY REQUIREMENTS

Groundwater monitoring requirements for Mining Waste Management Units are governed by the California Water Resources Control Board (1984). The regulations require that all monitoring wells be logged during drilling under the direct supervision of a registered geologist. The monitoring system must be designed and certified by a registered geologist or civil engineer and must define background water quality as well as monitored water quality at the point of compliance.

Wells must be constructed using annular filter material around the screened interval (sand or gravel pack) and the annular space above the screened interval sealed to prevent surface pollution and cross-contamination of saturated zones. The minimum depth of upper annular space seal is 20 feet below ground surface for observation and monitoring wells, with other provisions for shallow wells (California Department of Water Resources, 1981). The well must be adequately developed to prevent sediment from entering the casing. Other well construction standards for specific subsurface conditions are required by the State of California (California Department of Water Resources, 1981).

Based on these regulations and expected subsurface conditions, the mine water supply well will require a borehole diameter at least 4 inches greater than the production casing. A surface seal must extend to a minimum depth of 50 feet with a nominal thickness of at least 2 inches. The sealing material can consist of grout, bentonite, or concrete. The top of the well must extend above ground surface or known flood levels and prevent the entrance of foreign material.

2.3 ALTERNATIVE WATER SOURCES

Based on a generalized map provided by AVEK, a 36-inch north-south feeder line lies a few miles east of Soledad Mountain. The Mojave pump station is located on that feeder just east of Standard Hill. Mr. Russ Fuller of AVEK also indicated that they maintain a 32 million gallon reservoir in Section 5, T10N, R12W, which appears to be approximately 1-1/2 miles east of the project site. The Los Angeles Aqueduct passes through the area approximately 5 miles northwest of the site.

If required, water could be purchased from AVEK subject to rules and regulations concerning supply and connections. For the Golden Queen facility water rates are estimated at $165.00/acre-ft in 1990, $180.00/acre-ft in 1991, and $190.00/acre-ft in 1992 (Fuller, 1989). These figures do not include connection costs or other capital costs associated with delivery of water to the mine.

3.0 HYDROLOGICAL SETTING

3.1 SURFACE HYDROLOGY

The Antelope Valley is a closed basin, with surface water eventually reaching the dry lake beds of Rosamond and Rogers Lakes located southeast of the site. Due to the low precipitation received in the area, no rivers, streams, or other signs of significant or regular surface water flow are seen. The ground surface of the valley floor in the Soledad Mountain area generally slopes from west to east. Soledad Mountain and Standard Hill protrude from the valley floor, and form a local variation in surface water flow.

3.2 REGIONAL GEOHYDROLOGY

Water bearing rocks in the region can be divided into two broad classes: consolidated rocks and alluvium. The consolidated rocks comprise bedrock in the region and underlie the valley fill alluvium. The bedrock consists of a basement complex of pre-Tertiary sedimentary, metamorphic, and igneous rock units along with Tertiary-age volcanic and sedimentary rocks (Kunkel and Dutcher, 1960). As is typical of predominantly crystalline rocks, groundwater generally occurs in fractures and is limited in quantity; however, sufficient supplies for domestic use may be present.

Alluvial deposits fill the valleys between mountain ranges and bedrock outcrops in the region. The alluvium can be divided into a younger and an older unit. Playa lake deposits occur locally within both the older and younger alluvial units.

The older alluvium is the principal aquifer in the region. It is generally poorly consolidated to unconsolidated and is composed of silt, sand, gravel and boulders. Feldspars may locally be altered to clay due to weathering. Thickness of the older alluvium may range to as much as 2,000 feet in basin centers (Kunkel, 1962). Between Soledad mountain and the town of Mojave, alluvium may reach 700 feet or more in thickness (Rector, 1986). The younger alluvium is composed of lenses of fine to coarse sediment and unconformably overlies the older alluvium and consolidated rocks. It was deposited by intermittent streams of Pleistocene to recent age and may range up to 100 feet thick (Kunkel, 1962). The alluvial deposits are treated as one hydrogeologic unit, the alluvial aquifer, in this report.

Groundwater in the alluvial aquifer may locally be confined by low permeability, fine grained layers (Rector, 1986). The low permeability layers are likely the result of lacustrine and playa lake deposits or interbedded clays in the alluvium. Although it appears surface recharge to the alluvial aquifer can occur throughout the basin, limited annual precipitation and the presence of low permeability layers which inhibit downward flow probably restrict widespread areal recharge. Basin margins and areas of thin alluvial cover are probable recharge areas.

Soledad Mountain is in the Gloster groundwater subunit near the boundary with the Chaffee subunit (Kunkel and Dutcher, 1960). Regional groundwater flow is predominantly eastward across these areas, then northeast across the Muroc Fault and down the Fremont Valley toward an evaporative sink at Koehn Lake (Kunkel, 1962). Historic water well data for these units do not show any long-term downward trends in water levels (Fuller, 1989 and Rector, 1986). Therefore, it is assumed that the alluvial aquifer is not being overdrawn and could support additional withdrawal in the area surrounding Soledad Mountain.

Water in the Chaffee and Gloster subunits is moderately mineralized. Available data indicates that total dissolved solids in groundwater of the area ranges from approximately 200 to 500 mg/l. The dominant anions appear to be sulfate and bicarbonate with concentrations on the order of 100 to 200 mg/l. Chloride concentrations are in the range of 10 to 40 mg/l. Calcium is the predominant cation with concentrations generally ranging from 50 to 100 mg/l followed by sodium with concentrations on the order of 40 to 50 mg/l. Groundwater in the Gloster subunit can be classified as sodium-calcium bicarbonate-sulfate water (Rector, 1986).

3.3 LOCAL GEOHYDROLOGY

Based on available data for the wells closest to Soledad Mountain, depth to water ranges from approximately 90 feet to 190 feet. With the exclusion of what are thought to be five residential wells in the Goldtown Subdivision (Section 10, T10N, R12W) east of Soledad Mountain and one well north of Soledad Mountain (Section 31, T11N, R12W) depth to water is predominantly on the order of 175 to 185 feet. Well depths generally range from 200 to 350 feet.

When reported, well yields on the order of 30 to 40 gpm are common. Most of the reported yields are in the wells located east of Soledad Mountain, probably in the Goldtown Subdivision. However, two wells north of Soledad Mountain have reported production rates of 40 gpm. Near the town of Mojave, the Mojave Public Utilities District owns wells that have produced 500 gpm. Wells on the western edge of Standard Hill were reported to produce 150 to 200 gpm in the early 1960's (Rector, 1986).

The local flow system in the immediate vicinity of the site tentatively selected for mineral processing (mill/leach pad area) is poorly defined due to the influence of the bedrock outcrop and the absence of existing well information on the west side of the mountain. As stated in Section 3.2, the dominant regional flow takes place in the alluvium in an easterly direction. The consolidated bedrock comprising Soledad Mountain is relatively impermeable compared to the alluvium and probably acts as a barrier to flow in the alluvial aquifer. Therefore, the easterly groundwater flow paths in the alluvium are disrupted on the west side of Soledad Mountain and take a more northerly or southerly direction as groundwater flows around the bedrock barrier. This complicates delineation of flow in the vicinity of the mine site and the placement of monitoring wells.

A few miles north and west of Soledad Mountain, well depths and depth to groundwater generally increase. Depths to water on the order of 200 to 300 feet are common along with well depths of 350 to over 700 feet. Production rates for these wells are 300 gpm or more.

4.0 WATER SUPPLY

4.1 WATER SUPPLY

Water supply for mining operations in the area comes from wells completed in the alluvial aquifer or from AVEK. Based on conversations with AVEK personnel, the Standard Hill Mine obtains its water from AVEK. Shell originally tried to obtain water from wells, but apparently could not achieve the required production rates. It is believed that the wells were most likely completed too close to Standard Hill to penetrate enough of the alluvial aquifer to produce an adequate supply of water. Water for the Middle Buttes and Shumake Mines (west of the site) comes from nearby wells (within a mile of each mine). One of the wells is five hundred feet deep, completed in the alluvial aquifer (Hufford, 1990).

Alfalfa farms are located several miles south of the site. The source of irrigation water for these farms appears to be exclusively wells completed in the alluvial aquifer. Several wells have been identified in the immediate Soledad Mountain area, which appear to be for domestic use and of relatively low capacity.

4.2 SOLEDAD MOUNTAIN PROJECT SOURCES

The required water production rate for the project is expected to be on the order of 1000 gpm. As stated above, the consolidated rocks outcropping and underlying the alluvial fill are generally a poor source of water for all but domestic use. The valley fill alluvial aquifer appears to have the best potential for substantial water production.

In order to achieve adequate storage and production rates for mine use, a well or wells in the alluvial aquifer would need to be located a sufficient distance from bedrock outcrops to provide adequate thickness of saturated alluvium. Due to limited existing well information, it is uncertain where there is sufficient alluvial fill in the immediate vicinity of Soledad Mountain.

Well #25 (Table 1) and several other areas were located 1 to 1-1/2 miles northwest of the project site in Section 36, T11N, R13W. These wells (known as the Gillis Wells) were drilled to depths of over 600 feet, had initial groundwater levels of roughly 300 feet, and were pump tested at rates up to 750 gpm (Gaines, 1990).

4.3 WATER SUPPLY COSTS

Preliminary estimates were made to compare costs associated with the two most likely water supply alternatives -- purchasing water from AVEK and pumping from a well. It was assumed that costs associated with water delivery from each source to the mine site would be comparable within the framework of current expectations. The evaluation consisted mainly of the cost of well installation and yearly pumping for groundwater development compared with AVEK connection cost and yearly pumping and water purchase costs.

This evaluation showed that water supply costs are roughly \$0.12 to \$0.19 per 1000 gallons for a well approximately one mile from the mill/heap leach site compared with roughly \$0.32 to \$0.46 per 1000 gallons for a water line tied into the AVEK system. Furthermore, a well would have to be located 10 to 20 miles from the project to raise water supply costs up to those of AVEK. This implies that a groundwater source could extend as far as ten miles from the mine site and still result in a cheaper water supply than that provided by AVEK.

5.0 GROUNDWATER MONITORING

5.1 MONITORING REQUIREMENTS

Groundwater monitoring in the area of the tailings impoundment or heap leach area is likely to be conducted using three to four wells completed in the alluvial aquifer. According to the guidelines discussed in Section 2.2, a minimum of one upgradient and two downgradient wells completed in the top of the uppermost aquifer are required. The point of compliance would be immediately inside the nearest downgradient property line.

5.2 MONITORING WELLS

As mentioned in Section 3.3, groundwater flow on the west side of Soledad Mountain is likely to be changing direction from the regional west-to-east direction to a northerly or southerly direction (in order to flow around the lower conductivity rocks that comprise Soledad Mountain). Due to the absence of existing wells on the west side of Soledad Mountain, and the likely variations in flow directions in this area, directions of flow (and upgradient and downgradient wells) may not be established until three of the monitoring wells are drilled.

To compensate for this, three monitoring wells should be drilled around the tailings/heap leach area at locations expected to meet monitoring requirements. By evaluating the static water level in these wells, upgradient and downgradient directions can be established and designation of background and point of compliance monitoring wells made at that time. It is possible that a fourth well would be required if it is found that two wells were not downgradient of the mill leach pad when actual flow directions are defined.

Based on information from wells on the east side of Soledad Mountain, depth to water is estimated to be 100 to 180 feet. Depth to bedrock on the west side of Soledad Mountain is not clearly known. Therefore, it is possible that monitoring wells located on the property boundaries may extend into bedrock before reaching the top of the alluvial aquifer.

6.0 CONCLUSIONS

Conclusions form the data collection work conducted by WWL in 1989 and early 1990 are summarized below.

1. Suitable water supply for the project is likely from one or two wells completed in the basin alluvium west of Soledad Mountain.

2. Monitoring of a tailings impoundment or leach pad adjacent to the processing site is likely to require three to four monitoring wells along the Golden Queen property boundaries.

3. Logs of existing wells in the project area are generally not available due to California Division of Water Resources restrictions, and due to the difficulty of getting a well log request from the current well owners.

4. The wells in Section 36 (northwest of Soledad Mountain) that were potential sources for water were destroyed during earlier subdivision development

5. Wells in the area are reported to have measurable concentrations of arsenic, and one well on the south side of Standard Hill is reported to have measurable concentrations of cyanide.

6. Additional information about the geohydrology of the site, water supply, and waste disposal site monitoring will require installation and sampling of new wells.

7.0 REFERENCES

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ANTELOPE VALLEY - EAST KERN WATER AGENCY
AVEK
ESTABLISHED 1959

A PUBLIC AGENCY

May 12, 1997

Richard W. Graeme
Golden Queen Mining Company, Inc.
P. O. Box 820
Mojave, CA 93502-0820

Dear Mr. Graeme:

The Antelope Valley-East Kern Water Agency is a wholesale supplier of imported State Water Project water for the Antelope Valley area. The Agency operates (4) nine million gallon reservoirs containing potable treated water for Municipal and Industrial uses. The reservoirs are in the Mojave area southwest of the intersection of Silver Queen Road and Freeway 14. The Golden Queen Mining Company, Inc., located west of AVEK's reservoir site on the north side of Soledad Mountain, is within Agency boundaries. The Agency currently supplies water to Billiton Corporation for their mining operation on Standard Hill to the north.

Subject to proper application and payment of appropriate fees, AVEK would provide water for use by the Golden Queen Mining Company per established terms and conditions. The cost of conveyance facilities from AVEK's reservoir site to the point of use would be Golden Queen Mining Company's responsibility.

Please call if there are further questions or comments.

Sincerely,

Russell E. Fuller

Russell E. Fuller
Assistant General Manager

Appendix VI

METEOROLOGICAL DATA SUMMARY
APRIL - JUNE 1990
SOLEDAD MOUNTAIN PROJECT

Prepared for
Noranda Mining Corporation
Lakewood, CO

Prepared by
Jeffrey N. Herring
Air Sciences Inc.
Lakewood, CO

Project No. 58-07
August 1990

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1.0 INTRODUCTION

This report summarizes 3 months of meteorological data collected near Soledad Mountain in the Mojave Desert of Kern County, California for Noranda Mining Corporation near a proposed open-pit mining project known as Soledad Mountain Project. Data for this report was collected from April 1, through June 30, 1990. This report summarizes the third quarter of the monitoring program which began on September 29, 1989. Monitoring was performed in accordance with "Sampling Protocol, Golden Queen Mine Project, Mojave, California," (Air Sciences Inc., October, 1989). The purpose of the monitoring was to collect dispersion meteorological data to be used in dispersion modeling and to collect climatological values.

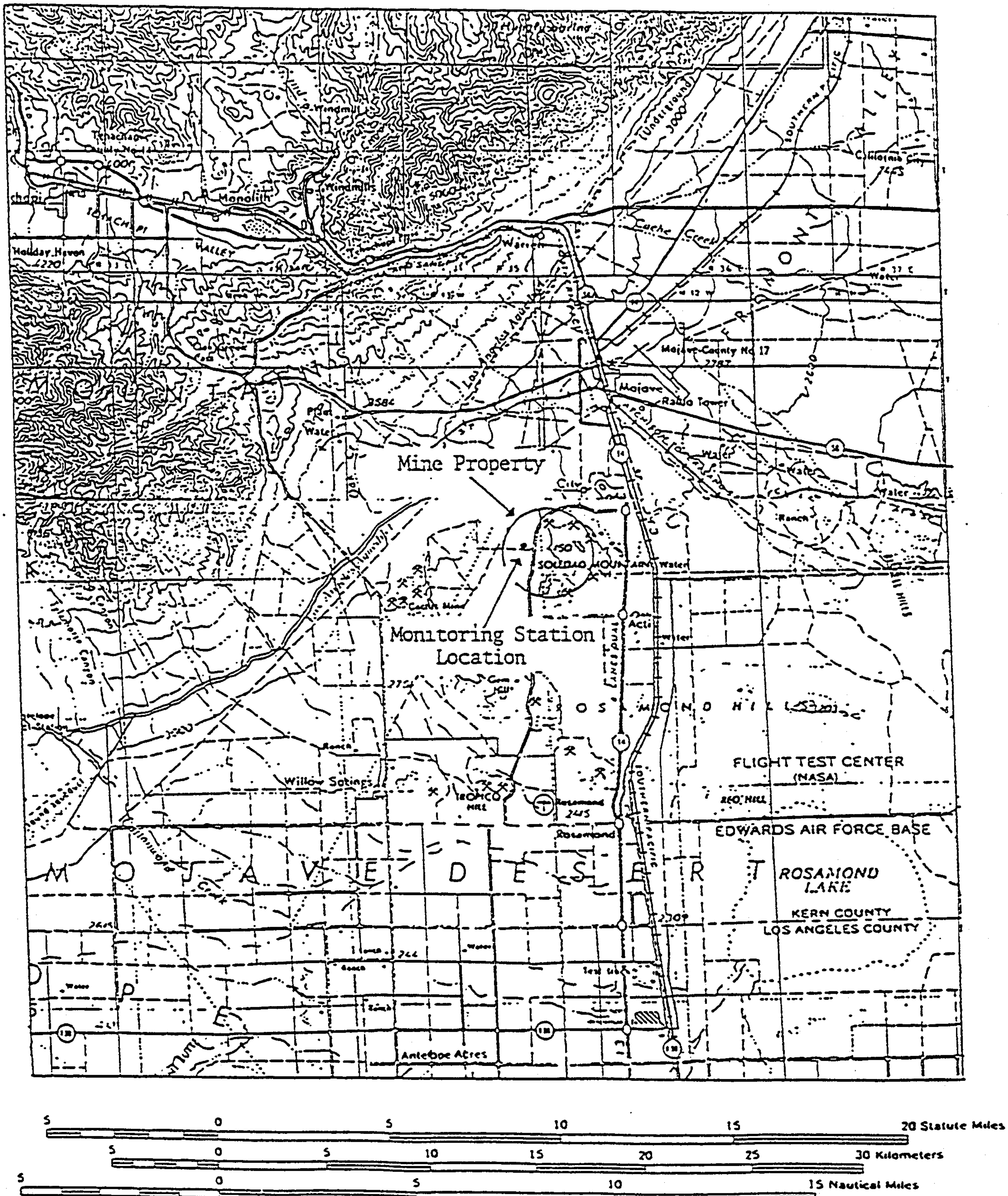
1.1 Location

The Soledad Mountain monitoring station is located on the plains west of Soledad Mountain in the Mojave Desert of southeastern Kern County, California. The site is approximately 12 miles northwest of Rosamond Lake and 5 miles south southwest of the town of Mojave. The mine pit and waste dumps will be located on the western side of Soledad Mountain, just east of the Mojave-Tropico Road. The monitoring station will be located approximately one-quarter mile west of Mojave-Tropico Road and west of the proposed pits and tailings dumps. The station will be located on the desert plain at a lower elevation than the proposed pits and dumps in an area where the meteorological data should define the wind patterns that will carry pollutants toward residential areas. The station will be at an approximate elevation of 2,850 feet MSL at UTM coordinates 3,871 km north and 389 km east (the southwest quarter of Section 1, T 10 N, R 13 W). Vegetation is sparse in this part of the Mojave Desert Basin and consists of sagebrush and widely scattered Joshua trees. The monitoring location is shown on Figure 1.

1.2 Program Description

The parameters of wind speed, wind direction, direction deviation (sigma theta) and temperature are measured and recorded at the single monitoring location. The wind parameters

FIGURE 1
GENERAL PROJECT LOCATION



CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

TRANSVERSE MERCATOR PROJECTION

were measured by sensors mounted atop a 10-meter meteorological tower. Temperature was measured by a sensor located in an aspirated shield at the 2-meter level on the tower.

The meteorological data are sampled every 10 seconds by a digital Data Acquisition System (DAS) and processed and stored in 15-minute average format and as 8-hour wind speed maximum and frequency distribution data. The DAS digitally stores sine and cosine of wind direction, wind speed, and temperature on a time-averaged basis. The 15-minute and 8-hour data are regularly transferred by mail to Air Sciences Inc. (Air Sciences) for processing and archiving. Environmental Protection Agency (EPA) methods are used to process the 15-minute data into hourly averages of wind speed, wind direction, wind direction deviation (sigma theta), and temperature as suggested in "On-Site Meteorological Program Guidance for Regulatory Modeling Applications," (EPA-450/4-87-013, Sections 6.0-6.4). Processing of the 8-hour data is performed by the DAS prior to the recording of the data onto the solid-state memory module.

Calibrations of the monitoring equipment are performed in accordance with the sampling protocol. Equipment calibration and audit procedures, as well as procedures used for data quality assurance, are based on EPA guideline documentation and are fully described in the monitoring plan. Calibrations were performed during the second quarter of 1990 on May 15, 1990 and records of these calibrations are presented in Appendix A.

1.3 Data Recovery

Data recovery rates for all parameters during this quarter are presented in Table 1. Recovery was 81 percent for all meteorological parameters except for temperature which had a recovery rate of 100 percent. Data recovery rates for this quarter of data collection were affected by an act of vandalism that occurred on April 28, 1990 resulting in about 17 days (409 hours) of invalid wind speed, wind direction, and wind direction deviation data. Temperature data was unaffected. The monitoring station was repaired and wind parameter data collection resumed on May 15, 1990. The EPA recommended average rate of recovery for meteorological sampling, stated as an annual average, is 90 percent. For the 9 months of monitoring since station installation overall data recovery is 94 percent for all parameters except temperature which is 100 percent.

TABLE 1
DATA RECOVERY RATES
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
APRIL - JUNE 1990

Parameter	Quarterly (%)	Overall (%)
Wind Speed	81	94
Wind Direction	81	94
Sigma Theta	81	94
Temperature	100	100

2.0 METEOROLOGICAL DATA SUMMARY

The meteorological parameters were sampled every 10 seconds and digitally processed into 15-minute averages. The 15-minute averages were transmitted to Air Sciences for quality assurance checks and to be used as input for the calculation of 1-hour averages. All summary data presented in this section was produced by the processing of hourly averaged data into tables of summary statistics and AIRS format tables. The meteorological values of wind speed, wind direction, and temperature, collected during the quarter are presented as hourly averages in AIRS format by month for each parameter in Appendix B.

2.1 Winds

The wind frequency distribution by direction and speed for all atmospheric stability classes shown as Table 2 and Figure 2 (wind rose diagram) shows that the highest frequency of winds was from the northwest accounting for over 41 percent of the total winds. The highest wind speeds were also from the northwest at an average of 17.6 knots (20.2 mph). These northwesterly winds are much higher in speed than the speeds of the other directions. The overall mean wind speed for the quarter was a moderate 13.1 knots (15.1 mph). There were no calm (less than 1 knot) winds recorded. The frequency distributions by direction and speed for each stability class, A through F, are included in Appendix C.

Appendix D contains one table for each month of data collection and displays daily wind speed frequency distributions (histograms). Each table contains the average daily percentages of winds in each wind speed category for each day of the month with a maximum wind gust for the day and a record of the time period in which the maximum wind gust occurred. Time period 1 is defined as the hours of midnight to 8 a.m, period 2 is the hours of 8 a.m. to 4 p.m., and period 3 equals the hours of 4 p.m. to midnight. Frequency distributions were recorded for each 8-hour time period from 10-second wind speed data. These 8-hour histograms were processed by Air Sciences into daily average histograms. The maximum wind gust for the quarter occurred on April 23, 1990 during time period 3 and was 62.7 mph. There were two days with high percentages of average wind speeds greater than or equal to 31 mph; April 24, 1990 with nearly 46 percent and June 6, 1990 with nearly 39 percent.

Table 3 shows the frequency distribution of direction by atmospheric stability categories A through F. Categories A through C (unstable winds) occur in the daytime and categories E and F (stable winds) occur at night. Category D (neutral stability) winds are transitional between daytime and nighttime conditions. Stability class was calculated by the method of Irwin (1980) which uses wind speed, standard deviation of wind direction, and local sunrise and sunset times for determining daytime and nighttime periods. A nighttime correction is applied to the stability class determination. The assumed terrain mixing height was 15 centimeters. Table 3 shows that the daytime winds blew predominately out of the south southwest to southwest with a secondary peak out of the northwest. The transitional class D winds represented over 71 percent of the total winds recorded at the site and the majority, 40 percent, of these winds were out of one direction, northwest. Table 3 also shows that the nighttime winds had a peak out of the south to south southwest.

TABLE 2
FREQUENCY OF WINDS BY DIRECTION AND SPEED
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
APRIL - JUNE 1990

Direction	Speed Class Intervals(kts) 1,<3	3,<6	6,<10	10,<16	16,<21	≥21	All	Mean Speed
N	0.2	1.2	0.5	0.2	0.0	0.0	2.1	5.8
NNE	0.2	0.8	0.5	0.1	0.0	0.0	1.5	5.1
NE	0.2	0.7	0.8	0.0	0.0	0.0	1.8	5.4
ENE	0.3	0.2	1.2	0.2	0.0	0.0	1.9	7.1
E	0.4	0.3	0.5	0.2	0.0	0.0	1.5	6.0
ESE	0.2	0.6	0.3	0.1	0.0	0.0	1.1	5.3
SE	0.1	0.7	0.2	0.0	0.0	0.0	1.1	4.9
SSE	0.2	1.5	0.2	0.1	0.0	0.0	1.9	4.7
S	0.3	2.3	0.7	0.2	0.0	0.0	3.5	5.2
SSW	0.3	1.5	2.8	3.0	1.4	0.3	9.2	10.9
SW	0.1	1.4	2.5	4.6	1.1	0.3	10.1	11.4
WSW	0.0	0.6	1.9	1.1	0.2	0.0	3.8	9.3
W	0.1	0.8	1.6	1.1	0.2	0.0	3.8	9.0
WNW	0.0	0.5	1.9	5.0	2.4	0.9	10.6	13.9
NW	0.1	0.3	2.5	12.8	16.5	10.3	42.5	17.6
NNW	0.2	0.5	1.2	1.3	0.2	0.2	3.5	10.4
All	2.9	14.0	19.3	29.9	21.9	12.0	100.0	13.1

Calm (less than one knot) = 0.0%
Period mean wind speed = 13.1 knots

TABLE 3
FREQUENCY OF WINDS BY DIRECTION AND STABILITY
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
APRIL - JUNE 1990

Direction	A	B	C	D	E	F	All
N	0.4	0.1	0.1	0.5	0.2	0.8	2.1
NNE	0.2	0.2	0.1	0.3	0.2	0.5	1.5
NE	0.6	0.6	0.2	0.1	0.0	0.3	1.8
ENE	0.3	0.5	0.8	0.1	0.0	0.2	1.9
E	0.3	0.4	0.2	0.2	0.0	0.4	1.5
ESE	0.6	0.2	0.1	0.1	0.1	0.2	1.1
SE	0.7	0.3	0.0	0.0	0.0	0.1	1.1
SSE	0.5	0.1	0.1	0.3	0.2	0.7	1.9
S	0.5	0.5	0.3	0.4	0.5	1.5	3.5
SSW	0.2	0.6	1.2	5.9	0.2	1.1	9.2
SW	0.7	0.4	0.8	7.3	0.4	0.5	10.1
WSW	0.3	0.2	0.4	2.3	0.3	0.2	3.8
W	0.3	0.1	0.5	2.2	0.2	0.6	3.8
WNW	0.2	0.1	0.4	9.5	0.2	0.2	10.6
NW	0.1	0.3	1.5	40.3	0.1	0.2	42.5
NNW	0.1	0.3	0.6	2.2	0.0	0.4	3.6
All	6.0	4.7	7.2	71.6	2.6	7.9	100.0

Calm (less than one knot) = 0.0%

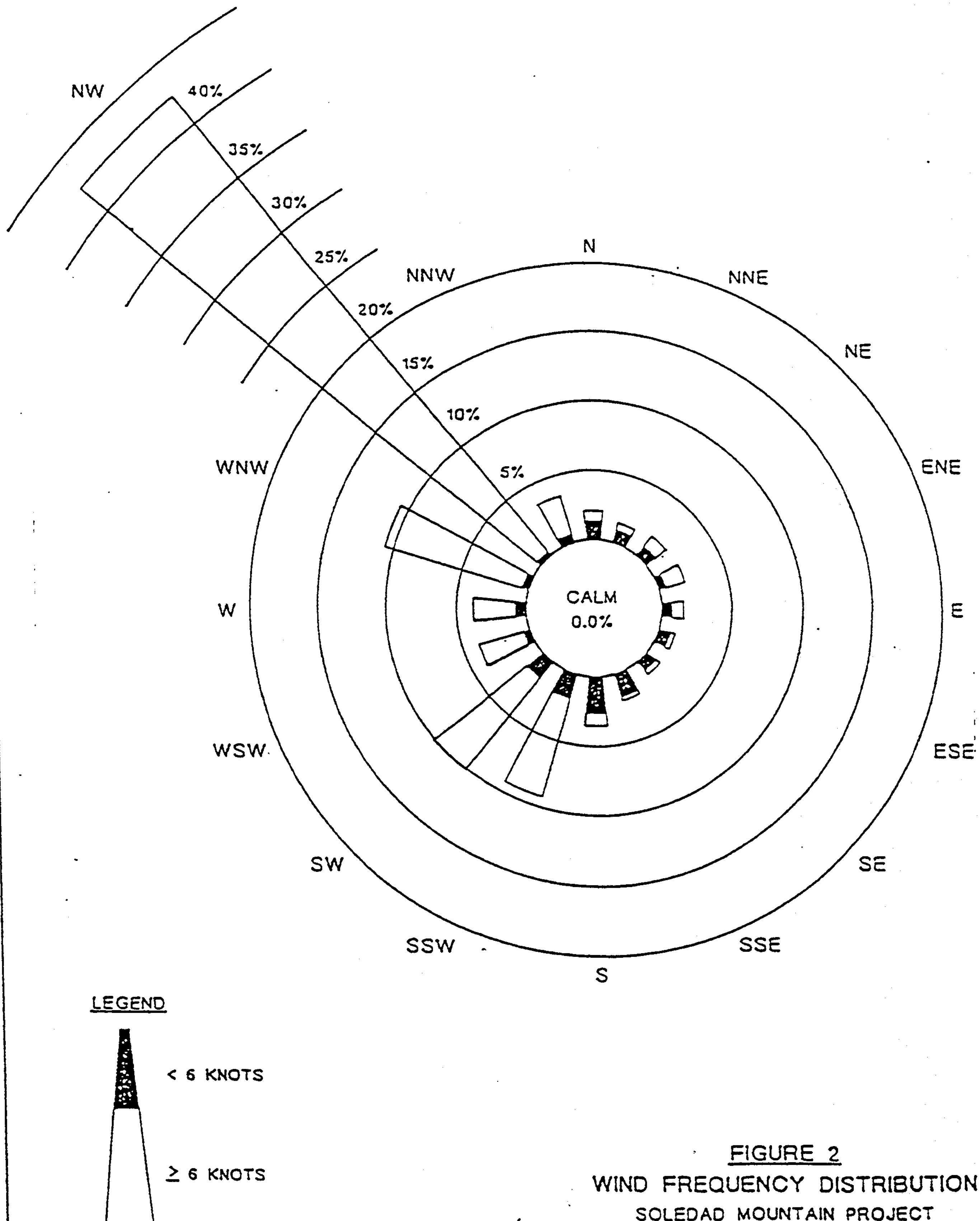


FIGURE 2
WIND FREQUENCY DISTRIBUTION
SOLEDAD MOUNTAIN PROJECT
MOJAVE, CALIFORNIA
APRIL - JUNE 1990

AIR SCIENCES INC.
LAKEWOOD, COLORADO

2.2 Temperature

Temperature data summaries are presented in Table 4. Average temperature for the data collection period was 19.9 °C (67.8 °F). The coldest month of the period was April and the warmest was June. The minimum temperature recorded was 6.9 °C (44.4 °F) and the maximum was 37.9 °C (100.2 °F).

TABLE 4
MONTHLY TEMPERATURE MEANS AND EXTREMES
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
APRIL - JUNE 1990
(°C)

Month	Average Daily Maximum	Average Daily Minimum	Daily Average	Monthly Maximum	Monthly Minimum
APR	22.6	11.3	16.8	30.8	6.9
MAY	24.6	11.8	18.4	33.5	7.0
JUN	31.5	17.7	24.5	37.9	7.7
QTR	26.2	13.6	19.9	37.9	6.9

APPENDIX A
Calibration Records

WIND SPEED CALIBRATION
CAMPBELL SCIENTIFIC LOGGER

Sensor Model No:	014	Client :	Golden Queen Mining
Sensor Serial No :		Job No :	58-7-1
Sensor Height :	10 m	Site :	Soledad
Logger Ser. No. :	5392	Date :	5-15-90
Name :	Jim King	Time :	13:00

I. SYSTEM INSPECTION

	PASS	FAIL
Bearings	New	
Cable	New	
Cups	New	

II. SYSTEM LINEARITY CHECK

	Input Frequency (Hz)	Target (mph)	21X Reading (mph)
1.	Ø	1.Ø	1.Ø
2.	3.01	6.4	6.4
3.	4.63	9.3	9.3
4.	7.37	14.2	14.2
5.			
6.			
7.			
8.			
9.			
10.			

Target (mph) = (Hz × 1.789) + 1.0
Target (m/s) = (Hz × 0.798) + 0.447

Comments:

Signature Jim King

AIR SCIENCES INC. 2/87

WIND DIRECTION CALIBRATION
CAMPBELL SCIENTIFIC LOGGER

Sensor Model No:	024	Client:	Golden Queen Mining
Sensor Serial No:		Job No:	58-7-1
Sensor Height:	10 m	Site:	Soledad
Logger Ser. No.:	5392	Date:	5-15-90
Time:	12:15	Name:	Jim King

I. SYSTEM INSPECTION

	PASS	FAIL
Bearings	New	
Cable	New	
Vane	New	

II. SYSTEM LINEARITY CHECK

	Orientation	Target (degrees)	21X Reading (degrees)
1.	Vane	58.0	58.0
	Tail	238.0	239.6
2.	Vane	308.0	309.0
	Tail	128.0	127.4
3.	Vane	282.5	283.8
	Tail		
4.	Vane	45.5	44.8
	Tail		
5.	Vane		
	Tail		
6.	Vane		
	Tail		

Comments: Declination 15.5 Deg East
Sensor slope = 0.71878
Set Screw = 179.8

Signature [signature]

TEMPERATURE CALIBRATION
CAMPBELL SCIENTIFIC CR10 LOGGER

Sensor Model No :	107	Client :	Golden Queen Mining
Sensor Serial No :	N/A	Job No :	58-7-1
Sensor Height :	2m	Site :	Soledad.
Logger Ser. No. :	5392	Date :	5-15-90
Name :	Jim King	Time :	11:00 – 13:00

I. SYSTEM INSPECTION

	PASS	FAIL
Radiation Shield	✓	
Cable	New	

II. SYSTEM PSYCHROMETER CHECK

	Psychrometer ( ) Measured	Corrected	CR10 Reading (degrees)
1.	16.9		16.9
2.	17.5		17.4
3.	19.3		19.3
4.	20.8		20.8
5.	21.4		21.3
6.	22.6		22.6
7.	23.1		23.1
8.			
9.			
10.			
Average			

Comments:

Signature Jim King

APPENDIX B
AIRS Tables

HOURLY AVERAGED WIND SPEED
APRIL 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A METERS PER SECOND

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	92	94	93	91	93	80	53	67	41	25	22	33	27	37	32	38	82	87	69	45	35	20	13	46	55
2	54	58	29	14	27	31	26	35	31	31	35	37	36	30	32	35	36	34	31	21	21	17	23	17	31
3	7	8	36	35	39	26	45	49	46	49	62	71	72	62	49	52	51	42	44	50	41	34	27	17	42
4	24	17	25	9	11	14	14	15	25	23	29	51	22	32	29	25	17	25	37	20	15	20	21	20	23
5	18	32	58	52	39	33	17	37	44	30	26	44	51	68	72	84	86	76	64	67	62	47	47	45	50
6	35	21	28	31	24	44	60	58	45	35	34	32	27	41	64	80	69	57	20	40	38	38	46	26	41
7	17	60	61	59	32	34	23	22	44	68	80	89	82	90	75	79	51	69	59	63	59	40	31	22	55
8	22	24	28	21	30	46	45	106	68	74	105	111	122	120	118	120	158	158	140	68	67	107	94	93	85
9	85	86	85	77	52	37	15	16	20	25	34	33	31	25	29	27	20	29	42	36	21	10	14	12	36
10	11	11	13	16	9	8	7	17	16	25	28	28	29	27	23	28	25	53	57	59	72	66	69	76	32
11	79	85	90	82	76	76	93	84	77	79	83	86	99	110	121	127	117	126	128	115	116	118	117	112	100
12	105	108	103	100	91	79	59	36	17	24	31	34	30	23	27	29	81	89	93	86	56	88	85	82	65
13	76	44	33	37	24	25	14	12	12	19	38	37	28	27	39	35	55	67	42	42	50	47	26	32	36
14	21	20	13	18	18	17	8	11	25	33	35	30	34	52	66	80	86	74	64	62	34	40	50	52	39
15	42	32	51	39	33	30	44	48	53	59	77	73	71	87	77	93	93	75	49	58	46	59	57	56	58
16	72	63	69	84	68	72	65	65	77	96	79	84	84	79	83	79	74	76	65	54	60	36	30	33	69
17	41	46	50	26	22	28	54	80	88	89	93	88	86	96	98	94	99	82	66	35	50	44	57	54	65
18	54	62	76	79	80	79	72	86	96	84	65	44	39	39	50	84	90	97	87	80	69	60	50	60	70
19	40	22	14	27	46	51	37	25	19	27	30	33	38	54	71	65	58	58	65	67	68	70	70	72	47
20	74	74	94	91	73	84	83	80	65	65	62	52	50	66	89	93	91	83	72	61	46	33	46	47	70
21	57	57	56	59	55	51	49	48	28	27	38	37	43	60	64	59	61	79	72	67	60	59	36	52	53
22	66	67	65	70	53	53	69	91	106	112	105	112	111	104	99	111	120	110	103	89	74	75	89	59	88
23	66	72	102	39	39	51	59	62	52	68	58	60	61	78	86	62	67	89	81	94	68	126	197	112	77
24	34	42	74	119	125	52	59	122	143	156	152	163	158	160	170	164	172	166	158	140	131	126	118	105	125
25	102	91	84	77	74	73	53	28	33	35	24	28	42	53	58	94	112	111	114	114	113	135	127	135	80
26	141	55	140	79	82	116	112	112	105	98	70	49	67	87	109	114	128	118	85	84	76	96	123	122	99
27	112	85	73	75	42	40	29	34	19	24	30	23	24	30	46	80	88	83	53	60	27	48	36	25	49
28	35	80	89	97	72	73	57	63	79	108	**	**	**	**	**	**	**	**	**	**	**	**	**	**	75
29	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
30	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
AVERAGE	57	54	62	57	51	50	47	54	53	57	56	58	58	64	69	75	81	82	73	66	58	61	63	59	61

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 08/01/90

HOURLY AVERAGED WIND DIRECTION
APRIL 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE DEGREES AZIMUTH

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	316	317	316	315	319	323	336	321	341	41	82	75	119	124	69	25	321	317	316	243	215	196	110	316
2	310	314	360	344	14	26	7	23	30	52	53	50	98	107	87	87	74	104	115	347	48	318	341	356
3	10	3	14	8	353	339	27	45	68	75	94	102	91	94	89	81	105	211	210	236	209	175	164	182
4	147	144	161	179	193	213	50	174	27	171	257	191	113	98	135	164	121	219	225	169	163	156	162	161
5	180	283	317	319	338	225	178	326	335	296	280	200	200	191	270	311	311	308	301	304	300	295	260	282
6	283	179	179	183	175	298	320	340	322	275	214	221	228	213	212	215	291	312	176	225	240	266	279	334
7	219	310	298	298	240	282	198	191	197	202	211	210	204	215	305	306	309	310	308	284	218	232	193	163
8	163	193	280	155	259	245	251	297	315	318	323	324	315	318	310	305	308	312	312	166	278	301	310	316
9	314	317	317	322	357	357	344	167	132	87	56	67	42	101	117	62	359	323	312	328	1	100	82	40
10	350	272	341	27	15	319	28	156	128	49	59	164	153	173	42	141	217	290	308	313	307	311	311	312
11	310	311	308	312	312	315	320	316	320	316	315	314	316	314	312	310	306	311	310	307	306	313	316	313
12	314	315	318	315	314	314	320	345	34	66	75	78	137	183	138	271	315	314	301	302	289	310	309	309
13	306	277	213	322	338	337	65	157	126	88	65	63	31	180	178	187	215	225	271	302	298	295	271	253
14	164	195	164	172	157	189	269	103	172	202	202	199	167	197	219	212	223	226	226	234	212	215	231	235
15	242	253	248	205	169	210	224	203	186	203	208	208	204	208	207	212	211	211	211	230	214	232	235	217
16	213	198	206	218	215	227	228	223	220	219	219	226	223	219	215	221	211	215	216	222	217	218	201	206
17	226	232	231	226	206	214	289	310	317	311	315	307	310	313	307	316	310	306	305	271	290	297	293	298
18	296	304	313	313	311	313	302	312	313	312	319	303	305	320	317	316	315	316	313	305	309	307	293	303
19	247	203	106	333	335	326	307	283	216	154	180	155	198	200	204	228	247	297	299	296	296	301	300	305
20	311	309	314	310	301	315	312	315	324	321	323	321	314	315	319	326	321	311	313	305	275	281	301	313
21	298	305	309	311	309	318	331	318	322	284	181	215	191	203	218	256	312	311	305	294	292	291	281	308
22	313	321	313	302	329	307	311	315	317	316	308	311	300	304	305	304	296	288	294	284	255	294	275	301
23	289	290	317	268	260	253	215	182	1	322	338	322	278	290	299	284	274	291	284	253	249	301	317	310
24	311	304	311	297	303	20	354	325	316	313	315	311	312	307	312	321	315	312	310	310	312	316	313	312
25	318	315	319	322	319	316	322	359	15	44	3	9	312	314	311	316	318	309	317	325	318	316	320	317
26	312	340	321	309	340	318	317	317	320	323	322	326	319	315	314	312	316	312	297	292	288	296	310	317
27	318	317	317	316	339	343	29	25	355	107	56	145	219	205	223	304	310	315	265	259	229	269	192	237
28	251	290	295	307	306	304	300	295	300	319	**	**	**	**	**	**	**	**	**	**	**	**	**	**
29	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
30	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 08/01/90

HOURLY AVERAGED TEMPERATURE
APRIL 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A DEGREE CELSIUS

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	142	141	138	134	133	132	137	160	182	199	210	220	228	232	234	227	213	189	178	162	145	129	132	143	173
2	145	144	135	131	127	116	124	137	163	184	195	209	218	219	221	224	220	213	192	162	159	132	103	98	165
3	89	82	92	114	104	108	125	155	178	196	211	220	227	231	229	229	222	192	172	168	155	133	125	116	161
4	116	121	117	104	103	107	118	138	144	154	157	159	173	178	177	177	176	173	145	120	113	102	105	100	137
5	95	115	133	132	124	119	123	160	181	193	204	216	224	232	224	217	207	191	175	168	164	158	155	154	169
6	146	108	110	99	101	123	148	171	191	203	216	224	234	240	241	232	217	195	171	157	155	154	152	144	172
7	128	140	136	132	121	124	103	114	157	172	191	196	203	205	173	142	141	128	113	117	105	91	84	82	137
8	86	98	100	94	91	92	102	114	123	132	148	150	153	159	160	157	148	137	126	123	122	118	114	114	123
9	112	110	108	109	107	100	94	136	164	189	202	215	224	234	239	243	241	231	187	168	156	145	145	141	167
10	137	116	97	109	91	77	88	169	202	223	238	251	255	263	268	268	266	242	218	207	201	197	193	193	190
11	191	184	171	164	164	168	174	197	220	234	240	247	249	246	238	227	216	202	186	181	177	173	168	170	199
12	171	167	164	164	164	162	177	208	228	245	260	271	280	287	295	296	266	226	203	194	191	191	185	183	216
13	185	175	172	169	149	132	151	202	233	258	269	283	293	304	304	307	299	280	253	226	219	213	203	199	228
14	164	173	172	167	161	157	161	207	221	247	259	271	287	288	284	262	251	234	209	198	179	178	174	174	212
15	159	141	148	134	110	126	161	179	183	199	188	186	205	219	218	197	176	157	143	139	135	139	138	130	163
16	122	105	99	96	95	97	104	105	126	129	130	130	135	125	123	123	124	115	100	92	88	81	69	71	108
17	86	84	89	82	74	80	103	126	138	141	143	162	163	155	163	165	153	142	124	119	118	118	117	121	124
18	119	116	116	116	117	119	126	141	157	171	188	193	204	213	214	205	195	179	164	157	153	147	145	142	158
19	129	113	118	124	130	131	148	169	188	199	211	226	235	245	240	226	228	205	179	169	166	162	158	156	177
20	152	143	133	132	131	128	134	150	159	159	191	206	204	206	201	193	191	175	159	152	148	143	140	133	161
21	131	129	125	125	121	120	134	154	172	187	195	208	222	230	230	224	210	187	166	159	155	148	138	135	167
22	139	133	133	132	125	123	142	158	170	183	192	199	200	208	200	197	185	174	164	158	156	153	157	156	164
23	151	150	136	133	128	129	127	132	158	179	184	188	203	197	184	184	186	160	144	140	130	125	119	110	153
24	102	96	88	81	82	84	86	89	105	117	129	139	146	150	147	147	146	138	126	126	127	125	123	123	118
25	121	116	113	111	108	109	136	167	183	199	213	224	234	238	241	231	211	198	182	175	176	170	164	158	174
26	156	159	163	159	156	154	164	180	193	218	243	259	269	267	254	240	228	217	200	191	188	185	179	180	200
27	177	173	172	169	164	167	191	202	228	249	261	274	288	299	308	297	280	259	234	226	205	218	203	198	227
28	196	206	202	200	199	202	214	228	240	240	253	256	256	262	262	251	245	239	223	208	198	189	178	164	221
29	146	135	127	125	127	121	136	144	156	161	165	170	176	185	189	190	183	171	150	139	132	121	115	112	149
30	103	91	80	82	80	75	90	102	95	82	73	104	133	151	166	171	162	153	138	128	123	121	120	120	114
AVERAGE	137	132	130	127	123	123	134	156	175	188	199	209	217	222	221	215	206	190	171	161	155	149	143	141	168

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 08/01/90

HOURLY AVERAGED WIND SPEED
MAY 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A METERS PER SECOND

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
2	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
3	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
4	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
5	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
6	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
7	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
8	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
9	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
10	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
11	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
12	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
13	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
14	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
15	**	**	**	**	**	**	**	**	**	**	**	97	104	116	117	108	105	105	101	54	30	66	83	70	89
16	75	86	71	42	15	29	22	25	35	49	47	43	36	25	28	36	63	66	59	42	34	29	23	14	41
17	16	31	38	18	14	14	23	42	63	74	80	66	75	78	84	73	71	83	76	67	74	76	84	47	57
18	48	47	57	68	76	50	71	74	72	39	36	58	79	75	74	96	59	83	71	68	63	71	47	20	63
19	24	28	62	62	28	38	93	105	93	97	111	105	104	100	90	101	84	80	71	66	88	110	64	66	78
20	101	114	70	64	66	76	92	105	101	105	98	80	80	96	93	98	105	98	91	87	59	85	84	79	89
21	70	80	102	101	87	93	88	71	34	21	28	35	74	63	63	73	70	56	48	58	62	47	35	45	63
22	50	41	25	23	20	27	18	28	49	50	69	58	63	64	51	46	49	61	76	57	28	26	14	17	42
23	20	21	16	17	19	45	38	38	52	67	72	93	107	118	129	129	113	80	89	89	90	109	115	88	73
24	86	81	108	105	90	75	120	109	104	113	102	95	103	111	118	120	118	117	118	118	118	106	92	97	105
25	89	89	96	93	90	84	92	105	87	49	43	42	45	77	89	96	80	68	54	67	70	70	67	64	75
26	69	62	37	26	34	20	61	46	29	61	72	81	91	92	92	89	90	84	72	42	38	30	32	46	58
27	34	63	76	93	74	35	42	44	49	62	63	69	87	96	93	97	96	89	74	67	60	79	56	57	69
28	50	42	51	50	44	27	48	64	65	93	76	88	102	114	111	110	107	89	76	63	107	108	92	96	78
29	98	99	74	78	97	93	103	106	107	108	107	95	82	104	109	105	106	99	109	99	89	90	95	69	97
30	89	84	98	58	49	57	66	90	103	105	109	108	103	103	105	99	93	83	78	70	77	74	63	53	84
31	24	30	41	49	76	51	45	67	78	98	100	108	112	124	108	99	99	117	115	92	103	61	93	93	83
AVERAGE	59	62	64	59	55	51	64	70	70	74	76	78	85	92	91	93	89	86	81	71	70	73	67	60	73

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 08/01/90

HOURLY AVERAGED WIND DIRECTION
MAY 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE DEGREES AZIMUTH

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
2	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
3	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
4	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
5	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
6	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
7	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
8	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
9	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
10	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
11	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
12	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
13	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
14	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
15	**	**	**	**	**	**	**	**	**	**	**	319	321	319	317	290	274	255	228	275	180	336	300	304
16	301	321	321	356	94	7	30	33	47	65	77	81	132	141	220	213	234	240	239	247	243	236	183	18
17	174	194	218	208	211	187	176	208	214	208	204	249	247	242	244	254	261	301	296	277	288	298	307	270
18	306	333	345	312	303	303	308	327	310	289	186	203	213	326	317	314	281	313	310	310	292	306	281	225
19	163	166	299	317	317	318	323	324	316	311	317	319	313	309	311	316	313	301	298	284	304	314	278	308
20	310	321	339	318	335	351	341	328	318	318	319	321	318	315	312	315	313	316	312	312	307	325	317	315
21	295	308	312	298	298	299	309	315	2	94	265	212	215	247	304	320	318	314	315	318	312	303	304	323
22	315	321	275	190	187	9	216	219	278	224	215	259	234	253	278	306	292	228	228	236	204	177	145	173
23	156	169	167	192	224	300	269	205	214	213	213	204	213	211	212	212	204	290	315	309	305	313	314	316
24	313	317	330	325	320	331	329	336	326	309	310	312	314	318	318	317	314	315	315	311	299	308	317	316
25	316	315	319	317	311	300	304	308	310	260	248	227	215	329	327	315	311	304	294	294	298	302	293	296
26	317	320	301	186	286	298	286	258	203	302	317	325	321	318	320	314	311	302	292	248	201	225	235	236
27	258	305	315	309	292	186	205	202	216	211	303	258	215	211	210	212	213	216	212	215	218	220	220	213
28	216	211	207	208	212	210	215	207	225	314	311	324	320	319	315	314	310	285	285	288	300	306	312	308
29	313	323	322	315	306	301	309	310	320	323	322	320	313	319	319	315	311	314	311	298	289	296	299	293
30	295	313	326	325	272	299	303	315	316	317	323	316	317	320	316	313	311	307	307	304	305	312	308	249
31	178	199	315	294	307	297	278	295	304	315	316	312	315	313	300	288	291	306	302	299	296	299	316	308

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 08/01/90

HOURLY AVERAGED TEMPERATURE
MAY 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A DEGREE CELSIUS

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1	118	112	102	83	71	70	123	151	169	179	193	200	207	212	209	215	210	196	176	165	159	156	155	155	158
2	154	152	148	146	145	151	177	195	211	222	233	238	251	258	253	249	239	228	211	193	192	195	192	188	201
3	183	178	176	159	133	140	176	214	236	248	258	265	271	279	278	285	277	262	243	229	225	218	216	208	223
4	186	186	154	143	142	147	211	236	252	261	275	286	297	304	307	306	297	283	262	248	241	234	231	235	239
5	234	228	226	214	200	179	212	234	267	276	289	297	308	317	319	322	320	305	282	267	259	254	247	247	263
6	240	237	236	232	225	227	249	273	295	307	316	323	330	335	332	318	305	291	274	258	240	249	239	229	273
7	225	213	202	207	182	160	204	238	267	280	294	302	307	307	301	298	283	252	242	208	188	183	173	166	237
8	161	156	149	138	115	112	165	197	229	248	262	276	279	269	271	279	268	230	192	173	165	157	150	138	199
9	133	131	132	132	102	81	158	190	207	226	241	248	252	249	243	238	228	208	174	152	139	129	142	132	178
10	110	90	79	80	75	78	92	110	122	138	153	154	162	170	171	171	157	148	128	123	127	129	123	120	125
11	118	115	112	112	113	116	127	143	162	181	196	207	212	219	223	219	209	198	180	170	161	154	154	151	165
12	151	148	144	141	142	143	160	187	207	218	232	249	257	264	257	246	229	213	195	183	178	178	176	176	195
13	170	166	154	153	163	167	185	201	223	247	260	270	279	283	283	270	250	228	205	193	171	144	136	131	206
14	126	116	114	107	94	98	141	180	197	222	235	241	245	245	240	233	221	206	187	176	166	156	155	150	177
15	130	123	127	125	117	131	150	165	**	**	**	228	230	227	222	216	208	194	178	164	155	154	152	152	169
16	154	152	149	138	129	107	146	176	200	227	245	250	255	266	272	272	261	246	235	221	212	193	180	160	202
17	147	119	129	108	104	103	160	186	208	223	233	256	260	261	258	249	238	220	201	182	169	157	157	150	187
18	148	137	126	140	137	141	163	187	205	224	235	249	253	253	249	233	225	201	183	167	160	152	142	123	185
19	106	100	107	109	106	108	114	120	129	143	163	169	174	177	178	171	167	159	145	135	135	132	132	131	138
20	130	124	108	112	114	117	134	152	165	178	193	214	226	227	220	209	206	195	180	174	167	162	159	157	168
21	156	153	147	145	148	158	178	199	218	242	259	273	270	268	269	261	244	236	217	199	195	189	180	169	207
22	167	161	151	134	122	145	157	183	218	235	255	273	281	281	281	274	271	251	217	195	181	169	150	137	204
23	136	129	119	132	125	154	176	183	208	230	244	252	253	251	241	227	213	187	157	141	127	117	105	100	175
24	99	96	94	95	88	94	104	118	132	153	177	188	192	194	193	186	181	170	153	139	134	128	122	120	140
25	119	119	119	117	117	126	141	157	180	210	230	248	260	263	257	246	234	219	198	181	173	171	167	163	184
26	160	166	150	136	126	117	145	167	189	211	224	232	237	235	236	231	220	205	188	173	158	147	145	153	181
27	146	145	143	145	143	122	134	162	178	194	191	201	178	186	182	172	152	136	125	125	114	109	99	96	149
28	102	101	95	96	93	91	117	118	141	130	136	161	167	166	171	166	152	140	130	125	124	123	121	117	128
29	115	113	107	110	111	118	131	145	155	163	171	183	200	199	198	196	186	175	160	149	146	148	148	149	153
30	143	140	139	135	136	137	150	165	178	191	200	208	215	219	221	220	212	196	177	162	150	136	130	120	170
31	107	105	108	110	107	105	118	131	137	142	157	161	168	166	172	170	165	156	144	134	128	121	119	116	135
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AVERAGE	148	142	137	133	127	127	155	176	196	212	225	236	241	244	242	237	227	211	192	178	169	163	158	153	184

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 08/01/90

HOURLY AVERAGED WIND SPEED
JUNE 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A METERS PER SECOND

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	132	126	91	94	98	93	99	97	88	45	30	27	25	32	46	78	89	89	94	102	97	100	98	92	82
2	58	77	81	72	23	38	51	25	32	23	23	19	18	22	22	28	52	63	63	67	68	72	81	76	48
3	61	13	21	20	15	29	28	32	24	30	35	37	45	50	81	104	112	120	125	117	122	109	122	128	66
4	132	129	119	78	61	41	33	68	47	50	51	73	98	107	108	110	111	109	115	114	116	116	117	116	92
5	118	118	109	110	105	77	97	90	110	111	108	102	104	110	119	122	121	110	107	107	104	105	111	103	107
6	97	116	101	101	118	112	136	147	151	134	119	131	130	119	123	134	142	152	157	155	148	140	136	135	131
7	130	141	126	130	128	112	88	63	24	25	31	31	30	28	24	52	78	89	90	114	118	121	119	105	83
8	91	87	84	44	62	31	42	34	18	29	29	34	39	44	51	49	72	77	79	97	97	67	34	22	55
9	28	28	24	39	46	72	48	52	48	44	86	99	92	79	69	76	63	71	80	54	72	65	67	60	61
10	52	23	34	32	36	48	56	65	81	82	78	93	93	100	103	101	97	90	62	52	33	25	42	84	65
11	63	66	54	38	17	24	67	81	88	88	89	89	88	101	101	110	112	114	77	75	99	77	45	47	75
12	34	70	84	71	106	91	78	96	103	102	104	114	114	118	130	129	105	96	100	72	89	104	88	66	94
13	56	45	25	11	16	30	41	66	86	103	114	120	127	121	115	122	124	103	90	80	71	52	50	42	75
14	18	27	21	31	48	45	63	72	76	80	79	84	88	89	81	84	92	84	77	52	51	33	30	47	61
15	33	30	59	31	46	45	38	82	99	110	110	121	114	120	122	116	113	117	103	89	108	105	105	102	88
16	97	108	107	93	90	94	82	60	35	31	34	36	36	25	33	29	27	61	71	67	73	81	79	55	63
17	61	61	51	23	29	19	20	26	26	34	46	66	74	84	75	87	92	85	72	51	31	25	36	69	52
18	55	38	55	24	24	29	14	19	29	44	30	38	29	70	93	88	104	104	85	78	84	89	94	81	58
19	100	99	80	46	17	15	15	37	46	60	51	47	58	55	51	47	42	34	56	72	70	51	18	13	49
20	11	13	15	27	10	11	10	32	43	47	43	39	33	38	23	24	24	52	59	62	74	68	66	55	37
21	22	15	20	25	26	15	20	25	28	24	25	35	39	67	73	80	82	76	55	35	59	49	21	20	39
22	19	57	42	54	55	44	47	51	42	42	42	57	73	93	97	94	91	82	63	46	40	41	26	24	55
23	10	17	19	16	12	24	34	59	56	59	62	75	76	81	84	78	72	79	73	56	40	40	25	13	49
24	16	11	20	28	12	16	42	58	66	68	63	63	72	74	71	63	83	85	77	64	69	67	64	61	55
25	65	84	86	78	67	76	81	66	52	33	26	28	52	77	90	97	102	105	110	106	112	104	113	111	80
26	108	111	116	106	111	80	86	92	93	78	108	122	133	133	124	137	134	119	84	70	98	112	106	102	107
27	108	55	33	35	31	39	49	54	62	82	83	93	116	112	124	110	109	105	109	103	111	113	130	126	87
28	119	101	102	98	91	92	108	98	94	81	73	59	49	54	75	96	99	94	89	87	87	84	77	68	86
29	69	70	52	33	29	14	34	51	64	63	64	64	64	67	72	75	70	75	60	30	34	36	22	42	52
30	56	59	59	55	53	36	30	28	40	51	52	56	74	70	83	74	77	65	47	41	39	32	31	23	51
AVERAGE	68	67	63	55	53	50	55	61	62	62	63	68	73	78	82	86	90	90	84	77	80	76	72	70	70

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 08/01/90

HOURLY AVERAGED WIND DIRECTION
JUNE 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE DEGREES AZIMUTH

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	325	327	258	269	310	315	310	316	314	1	124	28	145	354	315	320	321	314	307	299	307	317	316	316
2	321	316	313	323	6	345	316	44	34	37	86	124	120	239	171	147	342	314	309	307	306	309	309	312
3	306	80	19	35	47	351	342	338	280	216	209	207	209	262	323	321	321	314	307	309	310	316	316	313
4	313	311	308	334	345	4	322	315	313	314	318	321	321	325	321	324	318	314	316	316	319	316	314	314
5	310	308	306	307	309	331	312	310	309	312	320	319	318	320	316	312	310	302	297	293	296	292	292	291
6	290	291	292	305	309	311	314	316	319	306	296	311	316	308	302	300	315	318	313	315	315	315	319	320
7	322	318	321	317	317	323	322	319	7	2	81	82	42	346	13	333	316	311	308	311	314	313	314	314
8	307	310	307	345	318	356	309	333	126	218	211	228	208	194	205	219	303	318	314	316	307	287	199	184
9	230	194	205	200	252	284	336	192	206	214	217	232	230	215	239	246	272	317	308	309	315	308	313	308
10	274	256	322	302	332	332	322	326	313	313	318	316	322	319	320	317	308	300	284	256	237	232	300	308
11	300	303	300	326	349	271	299	308	311	317	317	322	323	320	319	315	303	301	281	275	293	259	227	221
12	279	310	314	340	317	308	305	317	319	318	324	320	320	320	317	319	316	316	313	303	314	325	321	341
13	304	265	260	158	234	189	165	204	203	204	212	222	222	220	220	222	222	221	222	223	228	226	226	215
14	283	201	192	208	240	228	228	225	219	210	206	205	203	207	218	211	216	215	213	214	290	235	188	208
15	233	240	286	243	257	248	243	309	316	313	314	311	316	316	313	308	314	316	315	313	315	321	318	325
16	322	316	316	319	318	316	315	317	333	35	56	53	121	107	113	228	186	294	309	302	306	309	309	302
17	308	312	317	8	12	22	22	290	215	191	212	214	212	221	212	212	213	213	217	225	204	161	265	319
18	306	297	309	317	360	351	224	197	258	307	252	241	249	314	319	321	319	316	317	324	318	316	311	301
19	318	317	318	340	39	21	42	50	73	67	66	68	58	62	58	70	74	67	333	314	313	321	26	89
20	83	91	68	354	60	61	78	44	50	58	63	96	131	145	123	123	231	239	292	309	307	311	313	309
21	10	176	356	295	238	116	41	67	43	156	169	191	209	228	215	221	226	227	221	235	304	303	187	176
22	208	304	224	280	300	287	301	304	223	209	201	218	208	205	211	207	213	218	222	233	221	211	187	193
23	202	178	176	153	229	237	241	227	219	209	206	212	206	214	218	217	220	216	220	227	259	281	270	206
24	188	198	186	160	201	320	237	240	220	222	212	223	212	209	203	311	310	310	306	313	314	314	314	323
25	322	317	315	312	322	312	303	320	314	316	279	269	316	332	323	320	324	321	316	320	318	314	312	312
26	309	310	308	304	309	300	311	316	320	309	315	320	323	321	319	325	326	324	311	294	309	314	310	305
27	305	274	249	297	269	314	348	338	285	313	305	314	319	316	309	315	315	316	316	310	314	318	313	317
28	318	308	308	315	313	308	319	314	316	309	311	321	327	314	323	323	314	311	306	308	309	311	310	307
29	308	308	304	296	280	184	240	243	228	226	221	207	205	202	200	212	218	215	234	257	240	245	262	310
30	308	307	306	306	308	308	287	232	208	216	211	224	217	210	212	212	213	220	271	283	226	202	190	205

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 08/01/90

HOURLY AVERAGED TEMPERATURE
JUNE 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A DEGREE CELSIUS

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
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1	111	108	113	111	108	101	114	141	165	194	209	221	233	248	249	237	222	202	178	159	153	150	154	156	168
2	150	147	146	144	140	153	175	199	213	233	255	270	286	302	311	316	314	293	260	233	222	221	217	221	226
3	218	205	200	195	192	210	238	262	289	307	322	339	355	363	354	332	308	277	249	231	225	220	210	209	263
4	206	202	198	195	187	193	220	247	283	311	328	344	341	334	325	308	292	271	243	225	218	215	212	207	254
5	206	203	199	198	196	203	223	239	249	260	275	290	296	294	286	279	266	255	240	229	229	228	221	214	241
6	203	194	191	187	183	190	207	221	230	243	257	264	268	271	270	261	256	248	235	226	223	221	216	207	228
7	201	194	188	181	179	185	204	238	267	285	303	314	328	336	349	344	314	278	251	226	217	213	211	208	251
8	207	210	206	201	201	211	237	267	285	309	326	343	354	359	364	363	343	316	284	264	261	262	239	215	276
9	232	226	218	212	208	237	257	252	260	277	258	247	249	239	239	240	242	226	210	210	208	205	201	202	231
10	202	191	192	189	193	201	214	215	221	244	258	270	278	278	276	271	263	252	239	227	209	186	203	205	228
11	197	196	186	184	182	194	219	230	241	257	268	276	286	284	286	274	262	247	232	220	206	208	205	200	231
12	203	201	193	183	184	197	209	218	230	244	253	262	269	275	270	263	261	251	228	214	213	209	205	194	226
13	195	179	160	153	118	132	172	188	193	193	201	202	200	200	201	199	185	168	147	130	121	114	108	101	165
14	95	83	77	82	93	102	121	137	153	166	179	189	195	199	206	202	194	181	161	145	146	134	120	113	145
15	101	97	110	98	104	112	132	152	167	180	194	201	212	214	211	208	202	194	184	174	171	168	166	165	163
16	161	157	154	152	151	160	178	204	223	240	252	266	275	282	287	290	290	267	233	211	200	195	193	191	217
17	188	184	179	172	170	182	210	232	243	256	271	283	286	291	289	282	268	254	234	206	190	182	195	193	227
18	185	172	181	167	160	174	185	218	241	255	266	282	295	302	293	286	273	256	238	219	209	199	191	189	227
19	191	187	184	178	172	181	216	241	259	281	294	305	325	336	343	344	343	338	302	266	255	245	234	220	260
20	219	213	219	197	169	193	252	295	310	329	346	353	358	363	368	371	370	359	327	301	289	283	279	274	293
21	263	251	255	242	243	253	293	308	320	335	356	369	375	379	375	371	364	355	335	293	285	275	238	222	306
22	228	254	230	235	235	247	275	298	300	315	330	345	353	352	348	335	325	307	277	245	228	221	208	201	279
23	185	177	169	162	148	198	245	270	287	302	317	330	336	337	338	338	333	316	293	267	249	234	221	204	261
24	202	194	186	183	193	210	260	281	293	304	318	333	346	353	355	345	330	313	292	274	264	259	251	244	274
25	237	233	226	222	218	228	249	274	297	315	333	348	361	364	363	352	336	313	284	263	252	244	239	236	283
26	237	233	229	225	224	231	253	272	292	319	340	351	351	351	346	339	330	318	297	279	273	269	267	263	287
27	254	250	249	260	242	256	274	290	305	320	329	338	340	341	339	336	323	306	285	263	251	244	239	231	286
28	223	217	209	204	205	210	227	252	276	297	314	331	342	354	355	339	321	300	275	250	240	233	231	230	268
29	230	229	223	216	206	209	258	291	306	323	337	349	357	364	361	357	356	338	310	287	271	258	250	264	290
30	262	255	253	251	245	251	285	304	306	340	356	370	376	376	374	354	339	330	328	301	280	259	249	232	303
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AVERAGE	200	195	191	186	182	193	220	241	257	274	288	300	308	311	311	305	294	278	255	235	225	218	212	207	245

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 08/01/90

APPENDIX C

Frequency Distributions by Direction and Speed
For Each Stability Class

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'A'

SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA

Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
	Speed Class Intervals(kts)							
N	0.0	6.6	0.0	0.0	0.0	0.0	6.6	4.7
NNE	0.0	3.8	0.0	0.0	0.0	0.0	3.8	4.8
NE	0.9	9.4	0.0	0.0	0.0	0.0	10.4	4.6
ENE	0.9	3.8	0.0	0.0	0.0	0.0	4.7	4.4
E	0.0	5.7	0.0	0.0	0.0	0.0	5.7	4.4
ESE	0.9	8.5	0.0	0.0	0.0	0.0	9.4	4.3
SE	0.9	10.4	0.0	0.0	0.0	0.0	11.3	4.4
SSE	0.9	7.5	0.0	0.0	0.0	0.0	8.5	4.4
S	0.9	6.6	0.0	0.0	0.0	0.0	7.5	4.6
SSW	0.0	3.8	0.0	0.0	0.0	0.0	3.8	5.2
SW	0.9	10.4	0.0	0.0	0.0	0.0	11.3	4.7
WSW	0.0	4.7	0.0	0.0	0.0	0.0	4.7	5.4
W	0.0	5.7	0.0	0.0	0.0	0.0	5.7	5.2
WNW	0.0	3.8	0.0	0.0	0.0	0.0	3.8	5.2
NW	0.0	1.9	0.0	0.0	0.0	0.0	1.9	5.5
NNW	0.0	0.9	0.0	0.0	0.0	0.0	0.9	5.4
All	6.6	93.4	0.0	0.0	0.0	0.0	100.0	4.7

Calm (less than one knot) = 0.0%
Period mean wind speed = 4.7 knots
Percent occurrance for 'A' stability class(es) 6.0%

AIR SCIENCES INC.
SBWIND(1.2) 08/01/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'B'

SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA

Direction	Speed Class Intervals(kts) 1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	0.0	0.0	2.4	0.0	0.0	0.0	2.4	6.4
NNE	0.0	2.4	2.4	0.0	0.0	0.0	4.8	5.9
NE	0.0	0.0	11.9	0.0	0.0	0.0	11.9	6.5
ENE	0.0	0.0	10.7	0.0	0.0	0.0	10.7	6.7
E	0.0	0.0	8.3	0.0	0.0	0.0	8.3	6.6
ESE	0.0	1.2	2.4	0.0	0.0	0.0	3.6	6.4
SE	0.0	1.2	4.8	0.0	0.0	0.0	6.0	6.8
SSE	0.0	0.0	2.4	0.0	0.0	0.0	2.4	6.5
S	0.0	2.4	7.1	0.0	0.0	0.0	9.5	6.6
SSW	0.0	1.2	10.7	0.0	0.0	0.0	11.9	6.9
SW	0.0	3.6	4.8	0.0	0.0	0.0	8.3	6.2
WSW	0.0	0.0	4.8	0.0	0.0	0.0	4.8	7.0
W	0.0	0.0	2.4	0.0	0.0	0.0	2.4	7.1
WNW	0.0	0.0	1.2	0.0	0.0	0.0	1.2	7.6
NW	0.0	0.0	6.0	0.0	0.0	0.0	6.0	7.0
NNW	0.0	1.2	4.8	0.0	0.0	0.0	6.0	6.4
All	0.0	13.1	86.9	0.0	0.0	0.0	100.0	6.6

Calm (less than one knot) = 0.0%
Period mean wind speed = 6.6 knots
Percent occurrance for 'B' stability class(es) 4.7%

AIR SCIENCES INC.
S8WIND(1.2) 08/01/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'C'

SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA

	Speed Class Intervals(kts)							Mean
Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Speed
N	0.0	0.0	0.8	0.8	0.0	0.0	1.6	9.4
NNE	0.0	0.8	0.8	0.0	0.0	0.0	1.6	5.2
NE	0.0	0.0	2.4	0.0	0.0	0.0	2.4	7.5
ENE	0.0	0.0	9.4	1.6	0.0	0.0	11.0	9.4
E	0.0	0.0	1.6	0.8	0.0	0.0	2.4	9.3
ESE	0.0	0.0	1.6	0.0	0.0	0.0	1.6	8.3
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.8	0.0	0.0	0.0	0.8	8.0
S	0.0	1.6	1.6	0.8	0.0	0.0	3.9	7.5
SSW	0.0	0.0	11.0	6.3	0.0	0.0	17.3	9.5
SW	0.0	0.0	7.1	3.9	0.0	0.0	11.0	9.6
WSW	0.0	0.0	3.1	2.4	0.0	0.0	5.5	9.7
W	0.0	0.0	4.7	1.6	0.0	0.0	6.3	9.9
WNW	0.0	0.8	2.4	2.4	0.0	0.0	5.5	8.4
NW	0.0	0.0	12.6	7.9	0.0	0.0	20.5	9.8
NNW	0.0	0.0	3.9	4.7	0.0	0.0	8.7	9.9
All	0.0	3.1	63.8	33.1	0.0	0.0	100.0	9.4

Calm (less than one knot) = 0.0%
Period mean wind speed = 9.4 knots
Percent occurrance for 'C' stability class(es) 7.2%

AIR SCIENCES INC.
SBWIND(1.2) 08/01/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'D'

SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA

Direction	Speed Class Intervals(kts) 1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	0.0	0.2	0.3	0.2	0.0	0.0	0.7	8.5
NNE	0.0	0.0	0.3	0.1	0.0	0.0	0.4	7.7
NE	0.0	0.0	0.2	0.0	0.0	0.0	0.2	7.9
ENE	0.0	0.0	0.0	0.1	0.0	0.0	0.1	11.7
E	0.0	0.0	0.0	0.2	0.0	0.0	0.2	12.7
ESE	0.0	0.0	0.0	0.1	0.0	0.0	0.1	13.8
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.3	0.0	0.1	0.0	0.0	0.4	6.5
S	0.0	0.2	0.2	0.2	0.0	0.0	0.6	7.5
SSW	0.0	0.3	2.0	3.6	1.9	0.4	8.2	13.5
SW	0.0	0.1	2.1	6.1	1.5	0.5	10.2	13.2
WSW	0.0	0.2	1.5	1.3	0.3	0.0	3.2	10.9
W	0.0	0.0	1.5	1.3	0.2	0.0	3.1	10.8
WNW	0.0	0.0	2.0	6.7	3.4	1.3	13.3	14.7
NW	0.1	0.0	1.7	17.2	23.0	14.4	56.3	18.1
NNW	0.0	0.2	0.9	1.3	0.3	0.2	3.1	12.4
All	0.1	1.4	12.7	38.4	30.6	16.8	100.0	15.9

Calm (less than one knot) = 0.0%
Period mean wind speed = 15.9 knots
Percent occurrance for 'D' stability class(es) 71.6%

AIR SCIENCES INC.
SBWIND(1.2) 08/01/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'E'

SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA

	Speed Class Intervals(kts)							Mean
Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Speed
N	0.0	4.3	4.3	0.0	0.0	0.0	8.7	6.2
NNE	2.2	2.2	2.2	0.0	0.0	0.0	6.5	5.2
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	2.2	0.0	0.0	0.0	2.2	6.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	8.7	0.0	0.0	0.0	0.0	8.7	3.9
S	0.0	13.0	4.3	0.0	0.0	0.0	17.4	5.4
SSW	0.0	6.5	2.2	0.0	0.0	0.0	8.7	5.5
SW	0.0	4.3	10.9	0.0	0.0	0.0	15.2	6.3
WSW	0.0	0.0	13.0	0.0	0.0	0.0	13.0	6.4
W	0.0	2.2	4.3	0.0	0.0	0.0	6.5	6.2
WNW	0.0	0.0	8.7	0.0	0.0	0.0	8.7	6.6
NW	0.0	0.0	4.3	0.0	0.0	0.0	4.3	6.6
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All	2.2	41.3	56.5	0.0	0.0	0.0	100.0	5.8

Calm (less than one knot) = 0.0%
Period mean wind speed = 5.8 knots
Percent occurrance for 'E' stability class(es) 2.6%

AIR SCIENCES INC.
SBWIND(1.2) 08/01/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'F'

SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA

	Speed Class Intervals(kts)							
Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	2.1	7.8	0.0	0.0	0.0	0.0	9.9	3.9
NNE	2.1	4.3	0.0	0.0	0.0	0.0	6.4	3.5
NE	2.1	2.1	0.0	0.0	0.0	0.0	4.3	3.2
ENE	2.8	0.0	0.0	0.0	0.0	0.0	2.8	2.4
E	5.0	0.0	0.0	0.0	0.0	0.0	5.0	2.5
ESE	2.1	0.0	0.0	0.0	0.0	0.0	2.1	2.7
SE	0.7	0.7	0.0	0.0	0.0	0.0	1.4	3.0
SSE	2.1	7.1	0.0	0.0	0.0	0.0	9.2	3.8
S	2.8	15.6	0.0	0.0	0.0	0.0	18.4	3.7
SSW	4.3	9.9	0.0	0.0	0.0	0.0	14.2	3.6
SW	0.7	5.7	0.0	0.0	0.0	0.0	6.4	4.1
WSW	0.0	2.8	0.0	0.0	0.0	0.0	2.8	4.8
W	1.4	5.7	0.0	0.0	0.0	0.0	7.1	4.3
WNW	0.0	2.1	0.0	0.0	0.0	0.0	2.1	4.1
NW	0.0	2.8	0.0	0.0	0.0	0.0	2.8	4.1
NNW	2.1	2.8	0.0	0.0	0.0	0.0	5.0	3.8
All	30.5	69.5	0.0	0.0	0.0	0.0	100.0	3.7

Calm (less than one knot) = 0.0%
Period mean wind speed = 3.7 knots
Percent occurrance for 'F' stability class(es) 7.9%

AIR SCIENCES INC.
SBWIND(1.2) 08/01/90

APPENDIX D
Wind Speed Frequency Distributions

AVERAGE FREQUENCY DISTRIBUTION OF WIND SPEEDS
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
APRIL 1990
(%)

Day	< 10	>=10, < 13	>=13, < 16	>=16, < 19	>=19, < 22	>=22, < 25	>=25, < 28	>=28, < 31	>=31	Max Gust (mph)	Time Period
	Wind Speed Intervals (mph)										
1	44.3	11.7	10.6	12.4	11.8	6.4	2.3	0.4	0.0	32.3	1
2	83.8	11.6	4.0	0.6	0.0	0.0	0.0	0.0	0.0	19.1	1
3	58.9	23.8	9.3	5.2	2.1	0.6	0.1	0.0	0.0	28.0	2
4	95.3	3.2	1.3	0.2	0.0	0.0	0.0	0.0	0.0	18.4	2
5	42.1	21.2	17.6	11.1	6.1	1.7	0.2	0.0	0.0	28.6	2
6	61.6	19.3	9.7	6.2	2.8	0.5	0.0	0.0	0.0	26.6	3
7	38.3	15.7	16.8	15.8	9.7	3.3	0.4	0.0	0.0	30.0	2
8	27.4	8.2	4.8	6.7	9.7	10.7	9.9	9.2	13.4	49.1	3
9	72.3	9.0	5.2	6.3	5.0	1.9	0.4	0.0	0.0	30.3	1
10	72.5	7.6	10.2	7.5	2.1	0.2	0.0	0.0	0.0	25.5	3
11	0.2	2.5	9.1	19.2	20.7	16.8	13.9	10.1	7.5	40.9	3
12	34.8	7.2	7.9	15.3	17.9	10.8	4.1	1.6	0.3	33.4	1
13	69.8	17.5	6.4	5.2	1.1	0.1	0.0	0.0	0.0	23.7	1
14	62.3	13.8	10.9	8.4	3.9	0.8	0.0	0.0	0.0	25.7	3
15	28.0	26.8	16.9	14.5	9.8	3.7	0.3	0.0	0.0	27.5	2
16	12.4	15.0	25.7	26.9	14.1	4.8	1.1	0.1	0.0	29.8	2
17	29.4	14.3	10.3	15.3	17.4	10.1	2.9	0.4	0.0	32.0	2
18	13.5	17.7	21.1	20.4	16.0	8.8	2.1	0.4	0.0	32.7	2
19	47.7	18.6	17.6	11.4	4.0	0.7	0.1	0.0	0.0	27.7	3
20	14.5	17.6	19.9	21.8	16.6	7.8	1.6	0.2	0.0	34.6	3
21	31.4	30.4	22.6	11.2	3.7	0.6	0.1	0.0	0.0	29.6	3
22	5.5	11.1	14.5	14.7	15.3	16.4	12.9	7.1	2.4	38.2	3
23	18.9	17.0	15.9	15.2	11.8	7.7	3.7	2.0	7.9	62.7	3
24	9.2	4.8	3.2	3.2	5.5	7.6	9.0	11.6	45.9	53.6	2
25	23.7	8.7	9.6	13.0	11.6	10.5	8.7	7.4	6.7	44.5	3
26	7.6	6.6	7.2	11.3	13.7	15.9	15.4	11.1	11.3	47.9	1
27	53.9	10.9	10.8	9.8	7.3	4.3	1.8	0.8	0.3	39.3	1
28	**	**	**	**	**	**	**	**	**	**	**
29	**	**	**	**	**	**	**	**	**	**	**
30	**	**	**	**	**	**	**	**	**	**	**
All*	39.5	13.5	11.7	11.4	9.0	5.7	3.4	2.3	3.4	62.7	3

* All data on this line are monthly averages of the daily values except for maximum gust and time period which are the maximum gust recorded during the month and the time period of that gust.

** Invalid or missing data

AVERAGE FREQUENCY DISTRIBUTION OF WIND SPEEDS
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
MAY 1990
(%)

Day	< 10	>=10, < 13	>=13, < 16	>=16, < 19	>=19, < 22	>=22, < 25	>=25, < 28	>=28, < 31	>=31	Max Gust (mph)	Time Period
	Wind Speed Intervals (mph)										
1	**	**	**	**	**	**	**	**	**	**	**
2	**	**	**	**	**	**	**	**	**	**	**
3	**	**	**	**	**	**	**	**	**	**	**
4	**	**	**	**	**	**	**	**	**	**	**
5	**	**	**	**	**	**	**	**	**	**	**
6	**	**	**	**	**	**	**	**	**	**	**
7	**	**	**	**	**	**	**	**	**	**	**
8	**	**	**	**	**	**	**	**	**	**	**
9	**	**	**	**	**	**	**	**	**	**	**
10	**	**	**	**	**	**	**	**	**	**	**
11	**	**	**	**	**	**	**	**	**	**	**
12	**	**	**	**	**	**	**	**	**	**	**
13	**	**	**	**	**	**	**	**	**	**	**
14	**	**	**	**	**	**	**	**	**	**	**
15	41.7	2.8	3.6	6.6	11.1	13.7	11.2	7.1	2.1	37.9	3
16	62.9	14.8	11.0	7.0	2.9	1.1	0.2	0.0	0.0	28.0	1
17	34.7	10.9	17.0	20.1	12.5	4.0	0.7	0.1	0.0	33.0	3
18	21.7	18.8	23.2	20.4	10.8	3.7	1.1	0.3	0.0	32.0	2
19	18.1	7.9	11.5	15.6	17.5	15.6	9.3	3.7	0.8	36.6	1
20	2.6	6.4	14.1	20.0	22.4	19.0	10.6	3.9	1.1	39.6	1
21	29.6	15.0	15.9	17.5	12.7	5.9	2.3	0.8	0.3	33.0	1
22	57.3	16.9	14.5	8.7	2.4	0.2	0.0	0.0	0.0	27.3	3
23	31.6	7.7	7.8	10.1	11.5	11.2	8.7	6.9	4.5	48.2	3
24	0.4	1.4	3.8	10.9	20.0	25.1	20.5	12.7	5.1	38.6	1
25	12.1	13.1	16.6	21.1	19.4	12.8	4.0	0.8	0.1	33.0	1
26	37.9	13.2	13.7	14.1	12.1	6.8	1.8	0.2	0.0	33.0	2
27	17.4	18.0	18.0	18.2	15.8	10.3	2.2	0.2	0.0	29.8	2
28	15.5	16.4	12.0	13.0	15.5	13.0	8.3	4.4	1.9	39.8	2
29	0.8	3.1	8.4	16.3	22.9	24.0	15.9	6.5	2.0	37.0	3
30	8.1	7.8	13.8	20.5	19.3	16.5	9.3	4.0	0.8	36.2	3
31	20.3	7.0	7.4	11.7	15.6	15.0	11.8	7.4	3.8	39.6	2
All*	24.3	10.7	12.5	14.8	14.4	11.7	6.9	3.5	1.3	48.2	3

* All data on this line are monthly averages of the daily values except for maximum gust and time period which are the maximum gust recorded during the month and the time period of that gust.

** Invalid or missing data

AVERAGE FREQUENCY DISTRIBUTION OF WIND SPEEDS
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
JUNE 1990
(%)

Day	Wind Speed Intervals (mph) < 10	>=10, < 13	>=13, < 16	>=16, < 19	>=19, < 22	>=22, < 25	>=25, < 28	>=28, < 31	>=31	Max Gust (mph)	Time Period
1	19.6	6.0	5.8	14.1	21.2	16.6	8.2	4.5	4.0	44.8	1
2	49.8	9.2	15.9	15.7	7.2	1.9	0.3	0.0	0.0	27.7	1
3	47.4	6.8	4.0	3.9	5.9	8.9	9.8	8.2	5.1	39.5	3
4	12.2	9.2	8.5	8.2	10.3	16.3	16.4	11.7	7.1	41.3	3
5	0.2	1.0	2.8	9.4	19.0	26.0	21.7	13.1	6.6	40.2	2
6	0.1	0.5	1.3	4.6	9.2	14.1	15.5	16.0	38.8	55.7	3
7	29.9	2.9	4.3	9.4	10.9	11.7	11.3	9.4	10.2	47.3	1
8	43.0	14.2	11.7	12.8	11.0	5.2	1.9	0.3	0.0	33.0	3
9	27.8	18.2	19.9	17.5	10.4	4.5	1.5	0.2	0.0	30.5	3
10	30.9	12.6	11.3	14.7	15.1	10.2	4.3	0.9	0.0	32.1	3
11	17.9	10.7	12.9	16.6	18.2	13.0	7.0	2.6	1.1	38.9	3
12	5.1	5.6	8.4	15.0	19.1	20.2	13.6	8.2	4.7	39.1	2
13	27.3	11.3	8.6	9.2	9.0	11.1	10.8	8.9	3.7	36.4	3
14	32.3	12.9	13.0	20.5	15.6	5.0	0.6	0.1	0.0	30.2	3
15	18.5	7.3	6.7	8.2	11.5	16.2	14.9	11.0	5.7	42.0	3
16	34.3	11.9	12.7	15.3	12.1	8.4	3.6	1.4	0.3	35.2	1
17	44.5	13.2	13.8	14.7	10.5	3.1	0.2	0.0	0.0	26.9	2
18	42.9	11.0	9.4	10.3	11.0	8.5	4.4	1.9	0.5	38.7	3
19	45.9	17.5	15.7	11.2	4.9	3.2	1.3	0.2	0.0	33.7	1
20	64.4	14.8	12.3	6.8	1.6	0.1	0.0	0.0	0.0	23.7	3
21	65.3	10.6	9.5	9.1	4.6	0.8	0.1	0.0	0.0	26.8	2
22	38.6	23.8	12.3	9.6	9.6	5.4	0.7	0.0	0.0	28.7	3
23	44.5	13.7	16.6	16.6	7.4	1.0	0.0	0.0	0.0	25.9	2
24	31.4	15.9	21.9	19.3	8.5	2.5	0.4	0.0	0.0	29.4	3
25	14.3	9.6	12.3	16.3	17.5	14.7	9.8	4.5	1.1	35.9	3
26	0.7	2.7	6.2	12.1	17.3	18.9	16.3	13.0	12.7	44.1	2
27	19.1	7.4	6.5	9.3	13.2	15.4	12.6	9.5	6.9	40.9	2
28	3.1	6.6	14.0	22.2	24.6	18.2	8.3	2.4	0.6	35.5	1
29	37.2	18.0	24.1	17.3	3.3	0.1	0.0	0.0	0.0	24.1	1
30	40.0	24.1	19.6	11.8	3.8	0.7	0.0	0.0	0.0	26.6	2
All*	29.6	11.0	11.4	12.7	11.4	9.4	6.5	4.3	3.6	55.7	3

* All data on this line are monthly averages of the daily values except for maximum gust and time period which are the maximum gust recorded during the month and the time period of that gust.

METEOROLOGICAL DATA SUMMARY
JANUARY - MARCH 1990
SOLEDAD MOUNTAIN PROJECT

Prepared for
Noranda Mining Corporation
Lakewood, CO

Prepared by
Air Sciences Inc.
Lakewood, CO

Project No. 58-07
May 1990

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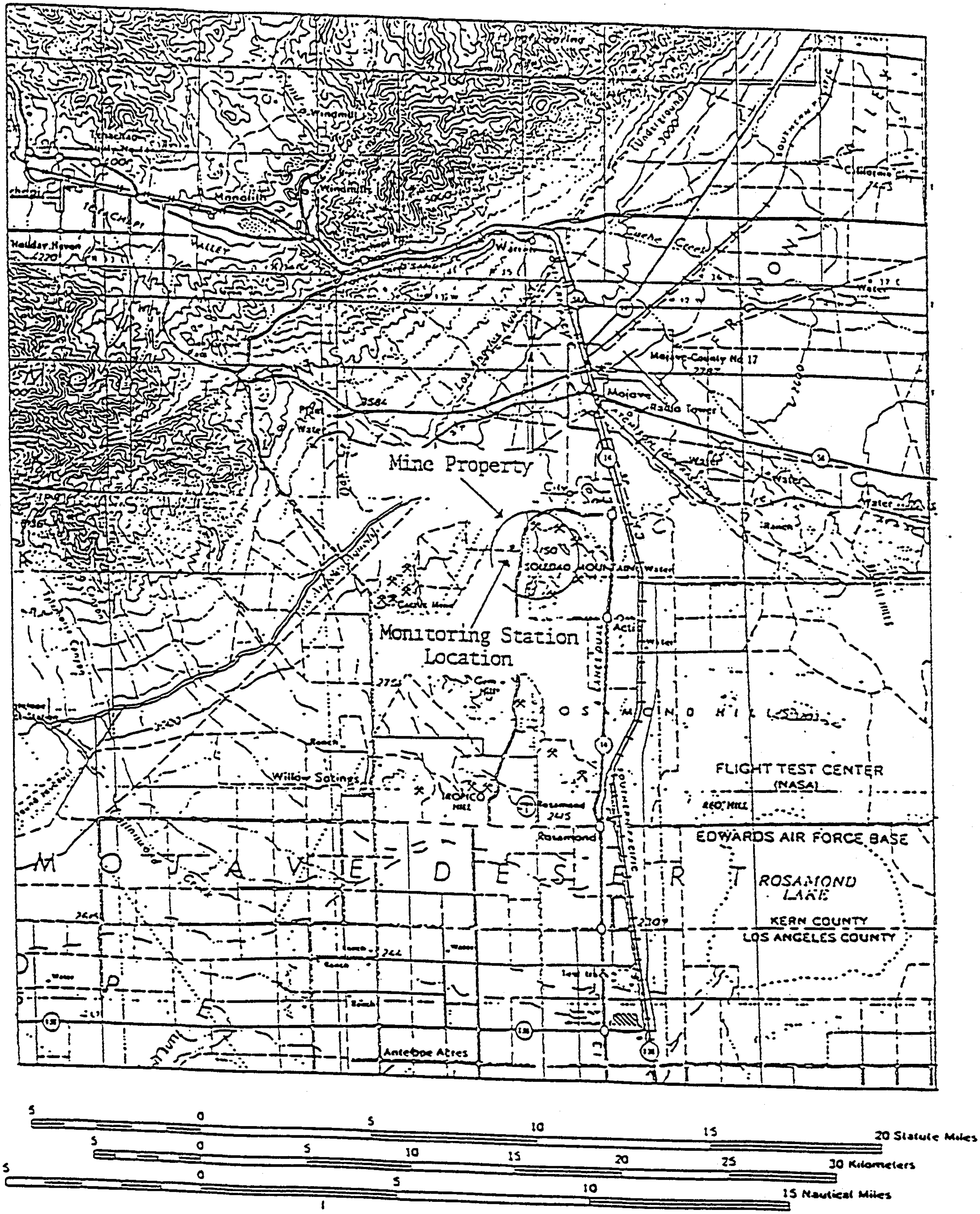
1.0 INTRODUCTION

This report summarizes three months of meteorological data collected near Soledad Mountain in the Mojave Desert of Kern County, California for Noranda Mining Corporation. The monitoring station is near a proposed open-pit mining project known as the Soledad Mountain Project. Data for this report were collected from October 1, 1989 through December 31, 1989. This report summarizes the first quarter of the monitoring program which began on September 29, 1989. Monitoring was performed in accordance with "Sampling Protocol, Golden Queen Mine Project, Mojave, California," (Air Sciences Inc., October, 1989). The purpose of the monitoring was to collect dispersion meteorological data to be used in dispersion modeling and to collect climatological data.

1.1 Location

The Soledad Mountain monitoring station is located on the plains west of Soledad Mountain in the Mojave Desert of southeastern Kern County, California. The site is approximately 12 miles NW of Rosamond Lake and 5 miles SSW of the town of Mojave. The mine pit, waste dumps and processing are expected to be located on the western side of Soledad Mountain, just east of the Mojave-Tropico Road. The monitoring station is located approximately one-quarter mile west of Mojave-Tropico Road on the desert plain in an area where the meteorological data should define the wind patterns that will carry pollutants toward residential areas. The station will be at an approximate elevation of 2,850' MSL at UTM coordinates 3,871 km north and 389 km east (the southwest quarter of Section 1, T 10 N, R 13 W). Vegetation is sparse in this part of the Mojave Desert Basin and consists of sagebrush and widely scattered Joshua trees. The monitoring location is shown on Figure 1.

FIGURE 1
GENERAL PROJECT LOCATION



CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

TRANSVERSE MERCATOR PROJECTION

1.2 Program Description

The parameters of wind speed, wind direction, direction deviation (sigma theta) and temperature are measured and recorded at the monitoring station. The wind parameters are measured by sensors mounted on top a 10-meter meteorological tower. Temperature is measured by a sensor located in an aspirated shield at the 2-meter level on the tower.

The meteorological data are sampled every 10 seconds by a digital Data Acquisition System (DAS) and processed and stored in 15-minute average format and as 8-hour wind speed maximum and frequency distribution data. The DAS digitally stores sine and cosine of wind direction, wind speed and temperature on a time-averaged basis. The 15-minute and 8-hour data, recorded on a solid-state memory module, are regularly transferred by mail to Air Sciences Inc. (Air Sciences) for processing and archiving. EPA methods are used to process the 15-minute data into hourly averages of wind speed, wind direction, wind direction deviation (sigma theta), and temperature as suggested in "On-Site Meteorological Program Guidance for Regulatory Modeling Applications," (EPA-450/4-87-013, Sections 6.0-6.4). Processing of the 8-hour data is performed by the DAS prior to the recording of the data onto the solid-state memory module.

Calibrations of the monitoring equipment were performed in accordance with the sampling protocol. Equipment calibration, audit and data quality assurance procedures are based on EPA guideline documentation and are fully described in the monitoring plan. Copies of the calibrations performed subsequent to the installation are located in Appendix A.

1.3 Data Recovery

Data recovery rates for all parameters are presented in Table 1. Recovery was 100 percent for all meteorological parameters. Data recovery rates for this first quarter of data collection exceeded the minimum EPA recommended annual average rate of recovery for meteorological sampling of 90 percent.

TABLE 1
DATA RECOVERY

Parameter	Percent
Wind Speed	100
Wind Direction	100
Sigma Theta	100
Temperature	100

2.0 METEOROLOGICAL DATA SUMMARY

The meteorological parameters were sampled on site every 10 seconds and digitally processed into 15-minute averages. The 15-minute averages were transmitted to Air Sciences for quality assurance checks and to be used as input for the calculation of 1-hour averages. All summary data presented in this section was produced by the processing of hourly averaged data into tables of summary statistics and SAROAD formatted tables. The meteorological values of wind speed, wind direction and temperature, collected during the quarter, are presented as hourly averages in SAROAD format by month for each parameter in Appendix B.

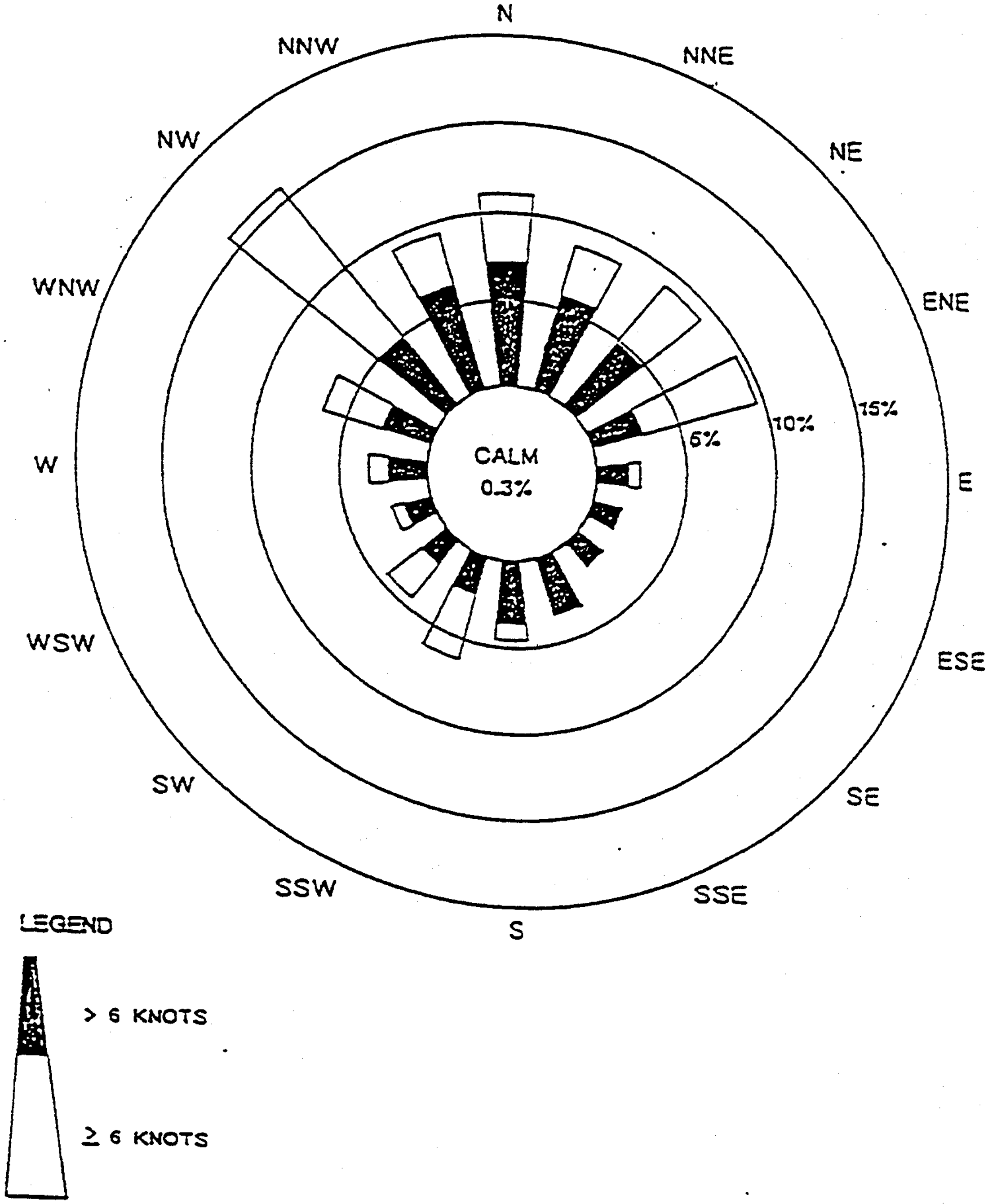
2.1 Winds

The wind frequency distribution by direction and speed for all atmospheric stability classes shown as Figure 2 and Table 2, shows that the highest frequency of winds were from the north (NW through ENE). These northerly winds accounted for over 63 percent of the total winds. The highest wind speed was from the northwest at an average of 12.2 knots (14.0 mph). All other winds were much lower in speed as shown by the overall wind speed for all directions of 6.8 knots (7.8 mph). The frequency distributions by direction and speed for stability classes A through F are included in Appendix C.

Appendix D contains one table for each month of data collection and displays wind speed frequency distributions (histograms). Each table contains the average daily percentages of winds in each wind speed category for each day of the month with a maximum wind gust for the day and a record of the time period in which the maximum wind gust occurred. Time period 1 is defined as the hours of midnight to 8 a.m., period 2 is the hours of 8 a.m. to 4 p.m., and period 3 equals the hours of 4 p.m. to midnight. Frequency distributions were recorded for each 8-hour time period from 10-second wind speed data. These 8-hour histograms were processed by Air Sciences into daily average histograms. The maximum wind gust for the quarter occurred on October 25 during time period 3 and was 50.6 mph.

FIGURE 2

WIND FREQUENCY DISTRIBUTION



SOLEDAD MOUNTAIN PROJECT
MOJAVE, CALIFORNIA
OCTOBER-DECEMBER 1989

AIR SCIENCES INC.
LAKEWOOD, COLORADO

TABLE 2
FREQUENCY OF WINDS BY DIRECTION AND SPEED
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989

	Speed Class Intervals(kts)							
Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	3.3	3.9	3.6	0.1	0.0	0.0	11.0	4.8
NNE	2.4	3.4	2.7	0.1	0.0	0.0	8.7	4.9
NE	1.9	2.9	3.7	0.5	0.1	0.0	9.1	5.9
ENE	1.0	1.9	5.1	1.6	0.0	0.0	9.6	7.2
E	1.0	0.8	0.3	0.3	0.0	0.0	2.4	4.8
ESE	0.9	0.6	0.1	0.0	0.0	0.0	1.6	3.0
SE	1.1	0.7	0.0	0.0	0.0	0.0	1.8	3.0
SSE	1.2	2.3	0.0	0.0	0.0	0.0	3.5	3.3
S	1.2	2.5	0.8	0.0	0.0	0.0	4.6	4.3
SSW	1.1	1.3	1.8	1.4	0.5	0.1	6.2	8.3
SW	0.8	1.1	1.0	1.1	0.4	0.0	4.4	8.4
WSW	0.8	0.8	0.7	0.1	0.0	0.0	2.3	4.7
W	1.4	0.8	0.9	0.3	0.0	0.0	3.3	4.9
WNW	1.8	1.0	1.0	1.6	0.6	0.2	6.3	8.4
NW	3.4	1.5	1.1	4.1	3.9	1.7	15.7	12.2
NNW	3.2	3.1	1.8	0.7	0.3	0.1	9.3	5.4
All	26.4	28.6	24.6	12.0	5.9	2.2	99.7	6.8

Calm (less than one knot) = 0.3%
Period mean wind speed = 6.8 knots

TABLE 3
FREQUENCY OF WINDS BY DIRECTION AND STABILITY
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989

Direction	A	B	C	D	E	F	All
N	0.4	0.2	0.2	2.4	3.6	4.2	11.0
NNE	0.7	0.2	0.8	2.7	1.1	3.2	8.7
NE	1.9	1.2	1.2	2.5	0.4	1.9	9.2
ENE	1.6	2.3	2.5	2.0	0.1	1.2	9.7
E	1.0	0.0	0.1	0.4	0.1	0.7	2.4
ESE	0.7	0.0	0.0	0.0	0.0	0.8	1.6
SE	0.8	0.1	0.0	0.0	0.1	0.7	1.8
SSE	1.2	0.3	0.1	0.3	0.2	1.4	3.5
S	1.1	0.3	0.5	0.6	0.6	1.4	4.6
SSW	0.9	0.3	0.5	2.9	0.3	1.3	6.2
SW	0.4	0.0	0.0	2.5	0.0	1.4	4.4
WSW	0.1	0.0	0.0	0.5	0.4	1.3	2.3
W	0.2	0.0	0.0	0.9	0.3	1.8	3.3
WNW	0.1	0.0	0.0	3.2	0.5	2.3	6.2
NW	0.5	0.0	0.1	10.8	0.4	3.8	15.7
NNW	0.3	0.0	0.0	2.9	1.4	4.7	9.3
All	12.1	5.1	6.2	34.8	9.4	32.1	99.7

Table 3 shows the frequency distribution by atmospheric stability categories A through F. Categories A through D occur in the daytime and categories D through F occur at night. Stability class was calculated by the method of Irwin (1980) which uses wind speed, standard deviation of wind direction and local sunrise and sunset times for determining daytime and nighttime periods. A nighttime correction is applied to the stability class determination. The assumed terrain mixing height was 15 centimeters. Table 3 shows that both daytime and nighttime winds were predominately out of the north (NW through ENE).

2.2 Temperature

Temperature data summaries are presented in Table 4. Average temperature for the data collection period was 8.9 °C (48.0 °F). The coldest month of the period was January and the warmest was March. The minimum temperature recorded was -7.6 °C (18.3 °F) and the maximum was 28.4 °C (83.1 °F).

TABLE 4
MONTHLY TEMPERATURE MEANS AND EXTREMES (°C)
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
JANUARY - MARCH 1990

Month	Average Daily Maximum	Average Daily Minimum	Daily Average	Monthly Maximum	Monthly Minimum
JAN	13.1	0.2	6.3	20.8	-7.6
FEB	13.6	0.7	7.1	23.1	-5.0
MAR	19.5	7.4	12.9	28.4	-0.2
QTR	15.4	2.8	8.9	28.4	-7.6

APPENDIX A

AIRS TABLES

HOURLY AVERAGED WIND SPEED
JANUARY 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A METERS PER SECOND

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	12	16	10	13	14	13	17	17	19	47	76	93	97	93	100	95	72	37	32	29	43	43	38	34	44
2	34	34	19	17	22	25	23	31	58	54	88	89	99	104	108	103	129	114	118	98	98	97	81	64	71
3	29	35	19	17	11	10	11	12	16	20	28	30	22	23	25	22	25	20	19	7	9	10	12	13	19
4	12	11	15	14	11	11	7	7	6	11	21	26	30	31	16	14	12	25	13	21	8	9	14	21	15
5	24	30	23	11	15	16	14	14	12	25	36	29	17	23	17	19	22	18	11	10	12	15	10	11	18
6	16	13	13	13	10	17	12	15	13	20	11	16	21	25	28	24	16	15	18	13	28	44	73	67	23
7	37	44	44	47	42	44	27	16	51	94	76	50	85	96	122	105	88	109	122	115	106	55	121	106	75
8	66	72	102	89	59	67	85	74	71	64	80	73	112	110	110	124	139	72	46	55	53	55	36	27	77
9	11	13	11	15	10	11	13	34	35	33	29	25	19	18	17	26	24	22	16	6	9	15	9	13	18
10	9	8	5	6	10	5	8	13	15	13	30	21	17	13	13	16	19	17	14	8	10	18	9	8	13
11	11	9	6	10	12	10	7	13	12	30	23	32	36	37	40	34	28	18	15	12	12	17	20	18	19
12	11	9	8	10	19	16	15	17	12	18	21	23	58	76	80	77	70	74	66	52	55	60	59	59	40
13	42	32	30	24	30	16	19	31	50	84	60	72	74	47	62	70	84	84	61	45	48	65	55	54	52
14	34	23	30	17	35	15	11	11	24	46	57	58	58	66	67	54	44	38	26	18	23	17	23	23	34
15	19	18	15	17	15	16	25	32	52	52	43	17	17	22	48	50	57	57	56	53	51	32	46	57	36
16	51	26	8	32	28	16	11	22	29	30	45	54	58	72	70	81	76	73	75	42	19	25	30	17	41
17	20	14	18	32	34	21	39	49	52	44	73	89	81	82	89	87	72	78	76	75	45	29	27	17	52
18	9	9	11	12	14	12	12	16	18	20	24	21	20	23	21	32	18	15	19	12	9	14	11	12	16
19	10	9	21	19	14	10	8	9	13	13	13	23	33	27	21	22	22	13	12	7	8	14	21	31	16
20	9	8	8	22	38	31	26	32	39	39	39	36	39	41	39	40	38	26	20	26	25	34	33	38	30
21	34	27	30	29	33	34	39	42	39	45	55	48	54	44	41	35	38	30	25	31	12	15	14	11	34
22	14	11	12	12	10	15	13	6	7	20	12	16	14	15	21	21	27	17	25	9	10	11	14	8	14
23	10	10	15	11	9	13	13	9	9	14	17	13	18	23	35	54	81	61	64	73	48	31	15	13	27
24	12	15	30	45	46	33	18	37	31	37	39	43	41	48	41	52	44	58	51	37	45	45	52	52	40
25	28	7	9	8	11	9	15	23	18	23	30	34	33	28	25	22	15	10	15	6	8	8	14	10	17
26	14	22	18	25	16	22	19	17	24	26	78	93	98	109	97	114	109	101	131	123	125	159	168	114	76
27	62	68	59	63	46	29	31	48	46	56	63	56	52	36	33	26	22	18	25	20	21	22	26	30	40
28	26	21	12	16	15	11	10	8	8	15	25	20	23	25	19	15	24	29	21	16	19	52	26	27	20
29	32	26	40	17	34	21	37	38	45	56	105	115	118	123	98	89	101	38	60	57	59	58	25	45	60
30	34	14	28	13	18	67	39	42	33	27	25	78	96	72	87	95	67	43	17	63	75	77	85	67	53
31	63	57	95	114	120	101	88	96	105	96	89	81	90	85	88	98	77	76	74	82	100	93	83	76	89
AVERAGE	26	23	25	25	26	24	23	27	31	38	46	48	53	53	54	55	54	45	43	39	38	40	40	37	38

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
04/12/90

HOURLY AVERAGED WIND DIRECTION
JANUARY 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE DEGREES AZIMUTH

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	27	321	191	284	257	199	232	180	179	206	207	211	207	210	210	211	217	272	246	282	216	217	208	206
2	206	192	141	144	91	50	357	291	297	308	313	312	312	310	309	317	314	315	312	322	312	315	319	316
3	2	294	37	300	121	353	86	9	27	91	146	136	120	51	50	48	88	106	341	39	333	340	282	298
4	320	7	337	2	351	354	41	295	140	90	78	68	78	98	51	81	125	275	252	216	169	191	344	350
5	353	358	357	125	205	206	339	355	11	17	37	35	51	129	202	155	161	180	289	27	360	350	34	226
6	317	21	313	360	296	353	265	280	169	177	123	152	158	172	172	166	185	199	245	246	161	291	328	333
7	304	300	306	315	342	9	350	260	338	327	348	2	323	324	313	321	307	312	310	308	307	315	309	306
8	336	318	326	326	329	317	317	289	303	299	315	323	325	322	322	320	316	26	35	32	39	19	9	11
9	291	264	246	332	17	328	309	360	16	33	34	25	37	156	174	173	178	204	328	355	314	303	7	351
10	339	311	252	307	342	327	329	8	40	84	46	36	42	149	165	144	158	208	307	343	321	358	13	279
11	325	347	109	295	308	184	267	11	15	18	21	31	28	40	49	52	50	297	241	260	193	167	178	175
12	173	250	236	324	12	56	171	173	138	148	157	212	222	221	221	216	208	216	225	230	241	215	212	205
13	216	208	215	214	204	199	175	172	195	208	210	212	214	215	214	210	209	209	218	246	213	201	199	214
14	202	221	239	216	274	166	76	284	184	215	217	220	217	219	218	207	221	233	219	162	198	147	174	191
15	173	216	178	162	205	178	277	292	305	298	311	36	181	231	274	333	311	302	314	311	306	288	298	307
16	302	219	297	275	254	204	182	210	215	190	236	231	232	213	209	216	212	212	215	241	124	344	288	210
17	28	144	13	332	299	232	287	313	305	330	305	316	319	322	317	312	314	315	316	316	339	333	330	344
18	311	181	247	351	353	240	172	168	146	143	190	185	77	55	53	77	27	184	245	289	228	222	246	302
19	334	332	8	13	349	341	5	38	38	212	170	36	39	46	142	166	194	186	251	274	348	320	350	356
20	13	334	308	352	17	5	344	351	36	38	48	56	56	62	38	53	36	14	16	32	12	16	7	355
21	354	9	358	352	348	348	356	2	22	41	48	59	67	62	74	71	94	83	17	359	321	320	15	9
22	8	2	328	9	315	303	328	10	52	151	161	40	54	67	96	119	62	104	334	8	360	250	303	346
23	319	318	290	20	8	8	251	208	152	169	163	110	153	192	164	273	303	291	331	347	340	354	230	326
24	289	247	355	6	345	348	305	360	20	51	67	70	65	71	64	70	77	91	85	11	15	24	34	31
25	334	31	343	324	334	356	321	334	354	39	40	60	68	64	42	42	24	237	294	357	319	238	263	242
26	255	203	246	248	110	252	5	144	168	199	303	308	316	316	302	323	331	339	332	334	332	318	309	312
27	300	313	324	330	336	7	360	34	42	54	51	56	53	49	65	69	41	36	1	355	356	348	348	343
28	343	354	358	6	8	338	330	256	36	148	191	186	157	190	187	178	180	195	237	189	288	345	357	335
29	28	231	291	206	351	153	273	261	247	275	296	299	303	300	313	318	320	180	316	291	335	314	23	300
30	295	95	328	99	282	307	287	300	246	276	211	245	239	245	215	208	241	282	94	312	293	302	309	301
31	310	307	307	311	314	304	310	313	317	318	319	320	315	310	310	314	312	308	307	310	310	311	314	309

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
04/12/90

HOURLY AVERAGED TEMPERATURE
JANUARY 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A DEGREE CELSIUS

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	68	66	44	35	1	15	-2	11	95	134	150	151	152	150	143	126	102	85	85	80	73	54	38	33	79
2	46	43	37	32	24	27	24	16	38	50	44	46	50	57	56	46	42	30	33	31	29	26	25	21	36
3	14	14	7	-11	-23	-32	-42	-22	17	47	55	65	76	80	84	82	67	41	-10	-31	-30	-31	-58	-57	13
4	-60	-61	-64	-68	-57	-61	-76	-70	8	54	74	88	96	103	105	107	93	38	41	28	32	20	9	-1	16
5	17	-4	0	-26	-36	-35	-50	-32	42	85	103	113	129	136	141	140	122	75	35	24	45	32	2	-4	44
6	-2	6	-12	-12	-28	-33	-37	-31	47	84	112	127	138	143	141	140	129	89	47	37	83	100	110	109	62
7	105	116	113	116	107	108	103	100	117	117	128	136	154	159	155	148	141	122	117	116	128	129	120	124	124
8	118	120	120	121	120	124	131	126	150	161	165	182	185	180	178	187	175	164	151	122	120	108	96	82	141
9	51	37	25	15	19	12	-7	29	93	123	142	161	176	189	198	189	169	115	87	78	56	41	40	36	86
10	29	27	23	7	4	3	10	18	95	136	154	169	187	200	208	208	189	136	93	73	63	67	72	45	92
11	39	35	39	25	19	10	18	31	86	121	149	164	175	186	188	187	174	119	97	75	70	85	93	97	95
12	91	65	57	58	51	63	78	77	115	144	148	160	165	163	146	138	130	120	113	110	106	104	103	96	108
13	88	88	87	85	84	81	81	85	91	99	102	107	93	87	95	94	92	90	80	74	75	77	76	70	87
14	66	55	51	41	64	53	37	32	62	77	90	100	108	111	100	89	77	70	64	59	51	43	36	34	65
15	16	23	21	31	24	15	20	42	72	87	96	103	110	106	89	93	82	63	58	56	51	44	46	44	58
16	46	28	9	30	40	22	17	21	39	55	73	74	79	80	78	71	61	51	44	33	16	21	16	13	42
17	11	10	4	15	10	11	12	14	20	30	34	41	37	34	36	26	23	18	17	19	7	1	3	-4	18
18	-17	-13	-7	-5	-1	-16	-14	-14	0	7	24	47	70	81	84	84	74	46	21	11	3	8	-1	-5	19
19	-9	-9	-14	-20	-29	-31	-39	-24	13	41	58	68	74	83	91	91	80	50	20	18	20	6	-12	3	22
20	-10	-17	-26	-20	-4	-8	-23	-13	35	52	68	78	85	90	92	91	84	49	39	33	26	16	7	3	30
21	-7	-6	-4	-8	-20	-22	-11	0	35	57	77	87	99	111	119	124	115	86	57	30	4	-4	3	17	39
22	19	17	-9	-20	-21	-23	-41	-24	37	80	101	112	126	138	142	132	118	82	51	49	44	25	11	-13	47
23	-6	-13	-16	-21	-22	-31	-39	-19	46	98	109	133	141	152	154	153	133	115	126	112	90	81	68	23	65
24	6	2	11	29	19	17	-5	28	79	110	126	137	144	147	152	154	146	131	118	70	58	48	57	55	77
25	32	10	7	-9	-16	-26	-13	18	82	103	119	127	133	139	143	141	135	103	37	27	26	15	14	14	57
26	16	30	54	67	69	51	35	60	109	146	160	153	134	130	127	114	94	74	67	56	57	60	59	55	82
27	53	53	45	39	32	6	3	35	46	68	82	97	107	112	115	115	110	77	22	31	31	24	4	-5	54
28	-7	-16	-28	-7	-11	-22	-41	-37	41	87	87	107	127	132	139	144	136	92	46	60	60	94	103	65	56
29	69	64	76	67	70	74	88	84	101	127	145	149	139	155	155	139	126	119	115	103	102	97	88	88	106
30	81	70	47	41	74	85	74	86	110	120	135	144	154	148	135	117	99	73	61	58	48	47	46	40	87
31	42	37	36	37	36	35	35	39	51	67	81	92	92	96	92	77	65	46	43	41	42	45	48	57	56
AVERAGE	32	28	24	21	19	15	11	21	64	89	103	113	120	125	125	121	109	83	64	54	51	48	43	37	63

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
04/12/90

HOURLY AVERAGED WIND SPEED
FEBRUARY 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A METERS PER SECOND

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	61	55	44	37	60	76	66	94	141	170	144	128	170	155	131	132	136	125	135	139	151	140	96	80	111
2	122	76	77	107	107	94	87	80	67	44	38	46	48	39	35	27	16	14	14	10	9	12	11	13	50
3	9	13	15	13	12	15	6	7	9	10	14	20	17	15	29	34	31	22	40	32	27	29	41	67	22
4	48	36	43	50	45	46	23	24	25	31	86	100	94	93	139	129	120	106	102	93	94	97	96	106	76
5	106	86	42	19	13	11	14	14	15	21	13	27	26	30	30	28	27	28	48	27	25	35	48	23	32
6	11	21	13	8	12	13	13	11	11	14	23	21	32	36	65	83	80	72	66	52	46	62	70	74	38
7	70	83	82	76	84	101	93	103	109	121	128	129	119	117	105	110	104	105	96	88	74	66	47	54	94
8	46	45	17	18	19	16	13	20	15	20	20	21	21	24	21	55	67	62	85	75	84	88	86	42	41
9	31	31	25	29	31	22	12	13	14	11	14	18	21	21	18	24	28	24	20	17	12	8	9	11	19
10	10	13	8	8	6	5	11	17	13	15	34	37	27	18	20	29	23	17	12	11	7	11	11	21	16
11	9	11	7	9	29	32	18	14	29	34	27	22	22	22	17	23	25	18	13	16	9	18	25	30	20
12	39	35	38	30	21	19	16	16	31	35	63	92	99	97	93	88	71	40	28	69	46	43	75	104	54
13	99	74	90	105	55	34	45	38	37	47	97	93	104	113	137	137	118	104	99	70	89	83	92	63	84
14	63	53	57	96	103	99	101	93	88	98	97	87	98	98	105	99	88	86	65	69	69	76	66	57	84
15	27	26	36	38	36	25	17	15	23	42	30	31	33	31	32	22	61	59	55	46	31	29	13	30	33
16	33	48	53	53	28	26	26	24	56	81	86	109	115	110	92	75	92	93	98	72	84	92	84	69	71
17	59	63	32	31	25	21	17	25	35	55	69	74	80	89	91	89	84	76	59	54	51	48	59	47	56
18	40	42	51	36	31	41	31	52	57	49	54	77	52	97	94	110	118	110	116	89	90	94	101	104	72
19	96	101	107	114	102	93	105	64	59	70	76	76	82	88	72	62	48	30	38	32	19	14	13	21	66
20	18	14	8	11	12	13	8	11	12	14	13	19	23	24	27	25	25	21	34	33	34	57	47	38	23
21	27	18	11	14	7	12	14	10	15	21	21	28	38	43	40	31	24	14	25	14	12	8	9	14	20
22	22	15	14	15	26	24	31	32	30	32	38	41	41	28	29	28	27	24	19	14	17	22	17	13	25
23	18	15	11	11	13	13	10	6	17	45	43	35	38	35	31	28	25	17	14	8	13	18	17	13	21
24	18	23	27	21	10	11	9	8	12	30	40	35	41	29	19	21	16	10	15	9	6	8	7	9	18
25	20	12	9	13	16	20	10	17	16	16	33	35	22	34	32	34	30	29	11	15	21	25	36	21	22
26	15	21	35	30	11	30	22	19	20	26	28	32	30	23	22	36	50	33	40	42	29	37	23	15	28
27	31	22	14	22	34	21	15	8	11	15	24	35	32	26	23	30	34	45	21	11	12	11	13	7	22
28	8	8	18	14	21	43	27	14	11	18	37	30	28	22	30	38	51	49	25	10	9	8	9	9	22
AVERAGE	41	38	35	37	35	35	31	30	35	43	50	54	55	56	56	58	58	51	50	43	42	44	44	41	44

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
4/12/90

HOURLY AVERAGED WIND DIRECTION
FEBRUARY 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE DEGREES AZIMUTH

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1	284	266	249	164	234	230	296	306	307	310	309	307	310	310	313	315	305	307	317	319	313	308	306	310
2	310	355	349	329	323	318	312	322	330	346	40	42	72	95	112	141	163	197	253	356	354	301	317	304
3	343	331	328	348	321	5	149	122	139	164	144	148	152	149	152	181	176	210	216	204	199	190	220	214
4	217	178	199	216	211	273	226	206	201	237	302	292	293	308	315	318	318	325	326	319	314	310	313	311
5	319	314	351	303	12	40	26	20	105	122	145	168	169	168	167	175	168	232	304	355	30	342	308	357
6	38	2	344	354	293	211	238	290	145	189	176	186	208	257	312	317	318	315	312	298	306	310	313	316
7	312	311	312	314	310	311	307	306	306	308	311	313	308	310	308	308	305	312	316	313	317	320	324	319
8	321	318	39	7	37	25	22	21	49	36	83	82	189	205	208	302	300	295	306	300	308	308	312	352
9	340	354	357	338	338	18	310	11	138	165	168	68	79	160	51	156	187	201	17	9	25	337	322	285
10	269	315	313	355	6	192	269	345	113	207	34	61	113	130	163	184	175	208	335	21	36	9	295	313
11	340	337	18	3	344	341	306	333	358	21	52	46	29	112	326	174	179	211	205	303	266	186	187	187
12	213	193	214	229	199	157	160	157	216	213	308	310	313	318	316	313	306	254	113	326	310	236	292	312
13	312	315	300	310	292	240	314	281	249	333	308	311	312	310	308	310	308	307	308	293	288	291	297	314
14	308	304	315	309	312	318	312	319	329	316	317	317	315	317	319	318	317	314	322	315	324	321	323	323
15	23	25	353	354	353	287	208	331	52	306	206	178	181	215	313	358	318	313	300	260	273	240	294	213
16	226	239	245	238	185	205	180	176	217	215	217	212	207	210	212	206	203	202	211	218	203	207	202	200
17	190	203	197	191	154	164	213	215	219	211	205	208	209	203	203	201	200	210	211	211	221	210	225	219
18	211	200	228	242	211	193	217	223	259	295	280	306	240	314	318	314	313	315	316	327	322	315	316	312
19	319	317	321	320	315	24	324	338	320	337	341	339	321	319	314	314	297	283	297	288	275	31	36	15
20	15	222	136	316	298	257	38	303	17	184	149	177	142	180	183	185	199	261	299	294	327	342	332	346
21	354	287	34	281	282	339	359	334	64	66	72	59	63	60	69	70	106	201	343	20	349	328	1	321
22	353	358	28	17	351	356	15	32	45	50	63	59	62	71	56	84	133	134	294	25	350	349	13	342
23	355	309	18	23	316	91	339	318	12	46	47	71	63	64	67	59	50	342	335	27	27	11	263	9
24	337	336	336	359	311	264	316	184	23	28	39	50	70	60	30	57	71	161	270	312	67	51	8	338
25	14	342	5	341	350	351	168	15	188	77	39	45	72	134	142	178	192	194	104	222	262	267	282	230
26	214	271	295	300	295	358	351	3	15	35	27	42	64	131	228	188	203	245	302	303	315	297	238	291
27	303	239	163	13	360	13	114	11	146	161	69	69	66	117	185	178	197	219	173	209	220	183	203	301
28	161	63	332	335	2	7	13	33	69	43	42	47	58	157	188	227	216	212	204	207	213	164	166	176

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
4/12/90

HOURLY AVERAGED TEMPERATURE
FEBRUARY 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A DEGREE CELSIUS

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	58	48	39	41	52	54	37	35	38	33	37	46	51	52	55	40	44	35	34	36	35	38	34	32	42
2	34	30	31	33	37	41	36	40	57	78	91	103	109	112	115	113	111	83	34	24	10	2	-6	-13	54
3	-20	-12	-23	-22	-25	-35	-39	-25	28	63	96	108	109	116	123	122	110	87	80	62	50	55	77	79	49
4	74	57	54	53	47	37	21	11	12	16	34	48	52	40	35	38	32	25	23	22	23	22	20	19	34
5	21	22	16	4	-2	1	1	16	46	64	83	87	99	106	110	111	108	83	60	55	52	59	51	35	54
6	29	13	0	-13	-15	-12	-6	10	59	83	98	121	134	143	131	98	75	61	54	60	75	53	45	44	56
7	45	42	41	39	37	33	36	32	34	34	36	46	62	62	57	45	33	25	21	18	17	13	16	11	35
8	5	3	-3	-16	-17	-21	-23	-10	29	47	60	72	82	92	101	95	70	42	34	32	38	42	39	32	34
9	29	24	28	23	18	-2	-14	0	50	81	100	116	126	138	141	142	134	99	66	61	53	42	16	1	61
10	-7	-15	-12	-21	-17	-28	-36	7	74	104	132	153	169	180	186	183	174	127	89	86	80	78	59	47	75
11	45	44	46	42	47	49	40	60	128	149	166	179	186	192	197	197	188	146	116	98	90	95	125	131	115
12	133	123	123	115	103	83	73	88	128	149	169	163	162	163	154	142	133	116	94	94	94	90	92	92	120
13	92	84	77	70	62	42	38	50	61	71	71	74	68	61	50	39	27	13	9	8	6	2	-1	-8	44
14	-17	-25	-30	-29	-29	-30	-32	-32	-23	-12	1	12	11	14	13	14	6	-9	-15	-15	-15	-17	-21	-25	-13
15	-27	-30	-40	-39	-41	-50	-49	-19	3	22	31	38	48	65	74	75	56	31	19	20	14	6	-19	-17	7
16	5	3	-2	2	-20	-18	-25	-15	23	37	48	58	56	53	47	43	40	34	29	21	22	22	23	30	22
17	34	33	33	38	40	43	46	48	58	71	85	83	91	103	105	98	84	68	54	47	40	37	35	31	59
18	32	35	31	25	27	27	29	39	49	36	45	39	45	36	38	34	8	-2	0	1	-1	-1	-3	-2	24
19	-1	0	2	2	4	10	6	14	35	47	60	75	81	80	83	86	83	62	47	39	31	26	33	28	39
20	6	-30	-26	-42	-38	-33	-42	7	61	87	111	125	133	141	147	144	133	116	104	101	100	100	90	90	66
21	87	72	64	30	23	8	6	36	102	127	146	151	158	162	155	155	151	120	77	77	67	51	51	31	88
22	44	32	20	27	37	35	57	96	128	147	163	173	181	190	194	198	194	171	108	83	89	82	81	67	108
23	70	57	56	36	32	20	16	70	148	168	182	201	206	214	218	219	212	178	118	122	129	128	93	68	123
24	72	71	75	69	61	36	37	58	140	167	178	191	205	211	211	208	202	180	125	123	96	109	110	96	126
25	101	91	87	72	72	79	62	96	131	182	188	204	215	214	219	220	213	191	163	134	134	134	136	133	145
26	110	112	134	128	106	81	62	61	109	145	177	194	211	221	226	223	208	174	158	156	147	146	130	124	148
27	116	114	101	87	67	64	55	93	148	176	192	203	214	222	227	226	219	188	153	136	130	122	107	99	144
28	79	74	61	53	57	76	69	101	145	177	190	205	218	226	231	229	220	195	146	130	113	110	108	113	139
AVERAGE	45	38	35	29	26	21	16	35	71	91	106	117	124	129	130	127	117	94	71	65	61	59	54	49	71

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
4/12/90

HOURLY AVERAGED WIND SPEED
MARCH 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A METERS PER SECOND

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	12	9	8	13	7	7	14	11	9	12	12	41	52	55	58	77	62	48	28	30	42	38	42	49	31
2	27	40	44	36	57	71	72	63	55	41	52	29	36	59	100	94	89	79	86	85	77	74	80	69	63
3	79	73	43	25	84	70	53	78	87	94	101	97	106	101	82	59	84	122	84	87	98	100	107	96	84
4	75	72	70	65	43	63	76	69	77	89	88	85	82	80	89	78	101	84	80	49	30	19	64	48	70
5	57	56	49	63	78	78	46	98	135	147	156	141	134	126	155	137	126	138	135	138	137	140	124	116	113
6	66	24	25	53	54	55	43	33	45	26	30	22	21	22	17	23	32	51	61	58	37	14	13	9	35
7	6	8	11	16	8	8	12	6	17	35	31	25	26	34	50	54	67	63	50	20	27	24	12	11	26
8	16	26	42	43	38	22	17	23	36	42	37	42	42	50	61	68	75	67	43	40	27	22	19	21	38
9	20	16	34	11	16	16	11	12	18	18	16	21	29	33	36	28	30	47	38	24	16	12	19	16	22
10	20	23	21	58	76	45	19	22	14	25	55	65	30	66	86	68	85	71	40	73	91	93	77	65	54
11	67	74	68	63	59	49	60	42	74	69	52	74	82	84	94	97	84	74	54	45	37	49	44	38	64
12	36	55	59	93	95	110	80	104	103	90	102	115	122	129	127	127	129	107	107	89	105	113	111	105	101
13	101	94	82	58	90	87	55	50	52	92	69	56	48	72	94	105	110	104	94	91	82	80	79	89	81
14	80	89	86	90	58	85	80	86	88	80	72	72	89	90	100	115	125	122	110	138	94	95	99	107	94
15	95	56	17	12	16	30	23	11	22	36	49	49	49	42	34	34	29	21	11	22	17	20	11	18	30
16	25	21	30	17	33	50	47	43	44	41	53	44	43	36	36	32	25	21	7	19	13	16	14	12	30
17	14	13	8	8	10	8	6	8	10	23	25	23	23	26	39	74	82	91	83	63	78	88	86	85	41
18	99	99	95	89	80	38	27	16	24	23	31	33	37	38	34	34	23	24	18	19	10	13	13	13	39
19	14	15	11	6	10	12	8	9	12	24	36	31	24	38	38	42	46	64	68	76	80	82	75	77	37
20	75	45	34	36	33	23	18	18	8	14	16	21	21	30	22	21	21	24	42	65	66	73	77	84	37
21	77	66	36	24	40	52	32	36	25	33	26	48	48	54	77	93	92	104	115	107	110	94	48	47	62
22	38	46	46	69	63	66	88	81	76	55	27	35	33	51	97	97	85	108	113	107	105	102	98	78	74
23	87	105	105	86	66	75	80	73	78	59	35	23	29	23	28	60	80	86	90	100	101	110	114	104	75
24	98	47	43	37	46	18	21	18	20	21	20	21	20	37	52	71	81	79	90	86	93	104	95	69	54
25	63	72	72	90	94	66	31	26	89	110	102	99	106	112	115	110	108	103	88	80	95	102	75	95	88
26	91	87	77	75	67	62	68	80	95	84	82	66	34	38	41	59	57	63	70	82	67	31	60	75	67
27	68	44	57	28	42	33	38	44	84	83	78	89	73	72	79	85	103	97	48	46	69	57	41	83	64
28	72	68	60	70	91	93	90	93	90	82	87	90	99	83	80	101	68	94	111	108	107	99	105	97	89
29	79	83	86	75	47	59	57	66	67	39	39	67	70	85	93	95	91	75	55	56	35	34	33	36	63
30	28	26	17	21	19	35	29	38	38	45	53	51	51	44	51	32	49	48	37	28	56	58	58	65	41
31	73	76	81	83	78	77	75	76	81	76	59	39	39	47	72	95	105	102	97	101	105	101	95	91	80
AVERAGE	57	53	49	49	52	50	44	46	54	55	55	55	55	60	69	73	76	77	69	69	68	66	64	63	59

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
04/12/90

HOURLY AVERAGED WIND DIRECTION
MARCH 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE DEGREES AZIMUTH

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	188	221	277	245	341	184	205	345	41	64	146	216	217	211	220	231	226	224	209	253	272	277	248	243
2	266	300	290	283	294	300	299	299	301	291	271	210	207	312	320	315	314	319	314	311	308	312	314	308
3	313	306	260	50	347	319	270	308	316	321	329	320	318	311	300	277	278	303	305	315	314	300	306	308
4	314	309	306	316	272	328	306	323	288	306	306	318	315	264	245	246	220	216	216	229	263	87	250	309
5	298	300	297	281	290	289	204	276	313	314	311	314	316	310	310	309	308	311	307	308	308	311	312	311
6	318	349	20	327	325	321	330	360	311	4	43	21	168	130	81	209	294	310	305	307	314	30	11	13
7	40	169	31	291	331	11	314	34	71	28	30	49	165	199	211	213	209	208	222	175	316	257	201	347
8	164	239	254	260	254	247	240	216	224	223	213	205	215	214	227	228	227	227	250	238	191	204	161	172
9	150	270	301	74	159	193	312	133	145	215	101	146	181	190	176	192	237	299	280	298	53	95	117	180
10	252	345	223	335	311	348	8	21	115	188	291	309	208	312	315	282	301	289	248	213	218	222	223	235
11	264	288	285	264	276	275	294	273	279	297	306	297	287	286	295	297	283	301	301	304	310	321	330	225
12	217	291	290	311	314	308	305	307	304	307	307	308	307	312	315	317	311	314	316	321	310	316	315	314
13	315	312	299	275	314	306	2	70	12	323	354	32	21	320	311	312	312	312	312	314	313	315	320	319
14	308	306	316	317	312	322	312	312	314	316	312	316	310	312	311	313	316	317	316	308	336	323	322	319
15	320	345	74	190	13	357	6	49	30	46	71	68	72	52	38	76	64	91	328	339	324	316	357	360
16	320	331	350	318	3	44	26	34	43	54	61	81	62	80	60	79	77	135	184	265	79	34	341	301
17	358	357	357	7	10	11	219	102	141	29	33	116	151	193	336	322	319	314	309	306	315	314	314	312
18	316	313	315	313	316	10	23	42	30	41	47	63	55	60	67	59	125	96	69	39	116	140	37	19
19	4	9	22	5	312	292	342	348	60	60	39	33	32	207	208	227	305	301	298	306	302	306	309	308
20	308	329	7	336	315	333	312	1	257	165	142	137	117	73	137	99	184	197	311	313	308	309	309	310
21	308	306	13	308	359	316	315	314	6	322	183	317	327	327	322	313	317	321	312	312	311	302	341	3
22	340	306	307	327	358	328	305	323	319	296	205	233	237	301	318	314	314	311	309	308	307	303	300	295
23	297	307	308	302	311	312	305	310	317	317	11	40	92	142	294	321	309	303	309	306	306	310	312	311
24	311	2	336	325	321	14	9	17	75	107	118	152	170	221	208	250	311	308	308	307	309	312	306	285
25	300	299	293	307	306	327	28	16	296	298	303	298	305	306	310	308	306	305	313	309	311	311	304	305
26	303	308	313	313	313	313	308	307	314	313	318	323	251	319	305	295	290	303	307	305	292	265	287	299
27	295	277	287	231	207	179	191	225	297	305	310	313	290	217	211	287	300	298	251	246	249	279	305	309
28	324	320	319	319	313	313	317	313	314	309	306	305	311	309	286	308	310	299	313	315	316	320	314	316
29	312	312	313	312	307	313	316	318	317	309	304	320	297	303	312	310	306	299	258	219	233	193	202	220
30	155	156	233	173	161	34	25	25	29	50	64	60	96	81	302	315	326	254	230	276	309	314	315	316
31	317	321	319	314	315	316	313	318	317	318	326	6	351	304	313	311	316	312	311	311	311	313	316	314

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
04/12/90

HOURLY AVERAGED TEMPERATURE
MARCH 1990
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A DEGREE CELSIUS

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
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1	110	102	73	89	67	76	76	87	119	149	171	190	206	215	210	197	188	177	159	145	138	136	139	144	140
2	135	130	124	115	119	120	127	132	145	156	177	185	198	194	181	170	155	139	129	123	124	119	114	109	143
3	108	108	106	104	105	110	113	122	130	143	143	140	148	138	138	136	135	127	117	114	111	107	109	108	122
4	106	103	101	98	95	96	100	110	126	136	150	161	167	171	159	146	105	92	88	90	87	82	69	55	112
5	46	28	17	21	29	22	25	25	36	41	48	53	58	62	58	55	55	45	39	38	38	38	38	43	40
6	43	39	39	42	40	41	43	71	97	115	128	143	154	162	169	174	167	132	106	100	93	85	79	66	97
7	47	42	20	14	-2	10	15	72	118	130	148	170	181	193	197	197	181	162	140	121	119	100	93	94	107
8	83	100	123	125	120	104	93	117	146	159	167	174	182	189	185	172	162	147	134	122	118	119	105	103	135
9	92	81	77	70	59	30	30	82	116	129	150	163	170	174	173	166	158	123	100	88	86	79	86	53	106
10	38	50	35	62	68	66	53	65	110	131	161	186	194	193	171	165	132	111	98	89	72	74	70	65	102
11	63	54	43	39	35	32	20	34	42	42	43	54	57	69	75	66	49	22	15	27	27	19	14	18	40
12	23	23	14	12	10	11	14	28	40	44	57	66	70	74	69	64	48	34	23	17	16	19	19	19	34
13	18	15	12	11	13	10	13	32	48	59	78	94	105	101	92	80	69	57	46	43	41	37	36	36	48
14	36	38	39	39	40	39	38	49	72	95	110	125	124	125	125	109	98	90	78	74	77	81	80	79	78
15	78	72	46	25	57	29	25	75	115	135	155	167	177	188	196	200	197	175	117	90	100	73	66	78	110
16	65	60	57	50	49	90	83	114	138	155	166	169	182	181	186	189	188	165	123	106	110	109	97	84	122
17	93	88	75	61	55	42	39	119	150	171	188	204	213	223	232	224	206	185	167	160	159	155	152	151	146
18	153	147	144	143	141	134	131	160	175	196	208	224	233	241	247	247	243	231	183	135	144	155	142	135	179
19	124	99	81	44	48	52	58	139	183	208	221	235	245	256	260	259	237	201	181	172	167	168	167	164	165
20	160	160	161	157	152	141	142	163	182	199	210	216	245	253	260	263	259	241	197	181	175	167	164	158	192
21	155	157	158	148	152	150	155	194	213	237	253	273	280	284	279	259	239	200	184	178	172	163	161	167	200
22	159	150	148	154	149	143	149	183	200	225	247	264	271	279	252	231	218	195	176	170	167	168	168	162	193
23	156	153	150	144	141	145	153	181	197	220	240	251	263	271	276	270	233	198	176	168	161	158	154	153	192
24	154	146	141	127	132	112	117	156	184	204	224	244	256	266	273	259	222	191	174	167	163	158	154	154	182
25	156	147	139	141	141	139	141	162	179	189	203	216	220	221	218	208	197	178	161	156	151	146	148	146	171
26	142	136	130	128	130	127	133	145	155	174	197	212	225	233	242	237	223	182	146	138	133	131	127	121	164
27	117	112	117	104	86	76	86	119	152	165	178	189	190	181	168	177	170	156	131	126	131	123	115	112	137
28	117	110	110	107	102	96	104	122	138	153	160	168	168	166	158	154	144	129	118	117	112	109	106	104	128
29	100	100	97	96	91	91	103	128	147	164	175	184	187	188	189	181	169	155	133	104	110	107	115	115	135
30	94	89	84	77	71	92	81	97	120	150	171	181	192	183	168	173	178	157	134	120	125	123	122	121	129
31	120	120	119	118	115	116	123	142	163	182	197	208	215	218	225	207	191	174	161	155	151	146	143	142	160
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AVERAGE	100	95	90	86	84	82	83	110	133	150	165	178	186	190	188	182	168	147	127	117	115	111	108	105	129

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
04/12/90

APPENDIX B

FREQUENCY DISTRIBUTIONS BY DIRECTION AND SPEED

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'A'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
JANUARY - MARCH 1990

Direction	Speed Class Intervals(kts) 1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	0.0	1.0	0.0	0.0	0.0	0.0	1.0	4.7
NNE	1.5	6.0	0.0	0.0	0.0	0.0	7.5	4.0
NE	1.5	12.4	0.0	0.0	0.0	0.0	13.9	4.0
ENE	2.5	10.0	0.0	0.0	0.0	0.0	12.4	4.1
E	1.5	5.0	0.0	0.0	0.0	0.0	6.5	3.8
ESE	2.5	5.0	0.0	0.0	0.0	0.0	7.5	3.8
SE	3.5	6.5	0.0	0.0	0.0	0.0	10.0	3.5
SSE	5.5	11.9	0.0	0.0	0.0	0.0	17.4	3.6
S	2.0	10.4	0.0	0.0	0.0	0.0	12.4	4.1
SSW	1.0	7.0	0.0	0.0	0.0	0.0	8.0	4.6
SW	0.0	1.5	0.0	0.0	0.0	0.0	1.5	4.0
WSW	0.5	0.0	0.0	0.0	0.0	0.0	0.5	1.6
W	0.0	0.5	0.0	0.0	0.0	0.0	0.5	5.2
WNW	0.0	0.5	0.0	0.0	0.0	0.0	0.5	5.4
NW	0.0	0.5	0.0	0.0	0.0	0.0	0.5	3.3
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All	21.9	78.1	0.0	0.0	0.0	0.0	100.0	3.9

Calm (less than one knot) = 0.0%
Period mean wind speed = 3.9 knots
Percent occurrance for 'A' stability class(es) 9.3%

AIR SCIENCES INC.
SBWIND(1.2) 04/12/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'B'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
JANUARY - MARCH 1990

	Speed Class Intervals(kts)							Mean
Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Speed
N	0.0	1.1	3.3	0.0	0.0	0.0	4.3	6.7
NNE	0.0	0.0	2.2	0.0	0.0	0.0	2.2	6.1
NE	1.1	6.5	5.4	0.0	0.0	0.0	13.0	5.5
ENE	0.0	6.5	15.2	0.0	0.0	0.0	21.7	6.2
E	0.0	0.0	4.3	0.0	0.0	0.0	4.3	6.7
ESE	0.0	0.0	1.1	0.0	0.0	0.0	1.1	6.8
SE	1.1	4.3	2.2	0.0	0.0	0.0	7.6	4.9
SSE	0.0	2.2	0.0	0.0	0.0	0.0	2.2	4.9
S	1.1	5.4	6.5	0.0	0.0	0.0	13.0	5.7
SSW	0.0	2.2	8.7	0.0	0.0	0.0	10.9	6.7
SW	0.0	0.0	4.3	0.0	0.0	0.0	4.3	6.9
WSW	0.0	1.1	6.5	0.0	0.0	0.0	7.6	6.5
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	6.5	0.0	0.0	0.0	6.5	6.9
NNW	0.0	0.0	1.1	0.0	0.0	0.0	1.1	7.6
All	3.3	29.3	67.4	0.0	0.0	0.0	100.0	6.1

Calm (less than one knot) = 0.0%
Period mean wind speed = 6.1 knots
Percent occurrance for 'B' stability class(es) 4.3%

AIR SCIENCES INC.
SBWIND(1.2) 04/12/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'C'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
JANUARY - MARCH 1990

	Speed Class Intervals(kts)							
Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	0.0	0.0	0.7	0.0	0.0	0.0	0.7	9.7
NNE	0.0	3.4	1.4	1.4	0.0	0.0	6.1	6.6
NE	0.0	3.4	15.0	2.0	0.0	0.0	20.4	7.3
ENE	0.0	0.0	19.0	2.7	0.0	0.0	21.8	8.4
E	0.0	0.0	2.7	0.0	0.0	0.0	2.7	8.6
ESE	0.0	0.7	0.0	0.0	0.0	0.0	0.7	4.1
SE	0.0	0.7	0.0	0.0	0.0	0.0	0.7	5.2
SSE	0.0	1.4	0.7	0.0	0.0	0.0	2.0	5.6
S	0.0	6.1	0.7	0.0	0.0	0.0	6.8	5.3
SSW	0.0	0.7	2.0	2.0	0.0	0.0	4.8	8.9
SW	0.0	0.0	5.4	2.0	0.0	0.0	7.5	8.9
WSW	0.0	0.0	1.4	0.7	0.0	0.0	2.0	9.4
W	0.0	0.0	0.0	4.1	0.0	0.0	4.1	10.8
WNW	0.0	0.0	3.4	4.1	0.0	0.0	7.5	9.9
NW	0.0	0.0	4.8	3.4	0.0	0.0	8.2	9.7
NNW	0.0	0.0	3.4	0.7	0.0	0.0	4.1	9.3
All	0.0	16.3	60.5	23.1	0.0	0.0	100.0	8.2

Calm (less than one knot) = 0.0%
Period mean wind speed = 8.2 knots
Percent occurrance for 'C' stability class(es) 6.8%

AIR SCIENCES INC.
SBWIND(1.2) 04/12/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'D'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
JANUARY - MARCH 1990

Speed Class Intervals(kts)

Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	0.1	0.8	1.8	0.5	0.0	0.0	3.2	7.5
NNE	0.0	0.5	1.0	0.4	0.1	0.0	2.0	7.8
NE	0.0	0.3	1.4	0.4	0.0	0.0	2.1	8.1
ENE	0.0	0.1	0.1	0.0	0.0	0.0	0.2	7.5
E	0.0	0.2	0.1	0.1	0.0	0.0	0.4	8.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.1	0.0	0.0	0.0	0.0	0.1	3.9
SSE	0.0	0.2	0.1	0.0	0.0	0.0	0.3	5.4
S	0.0	0.9	0.6	0.1	0.0	0.0	1.6	6.0
SSW	0.0	0.8	1.8	2.6	1.9	0.3	7.4	12.4
SW	0.0	0.4	2.7	3.8	0.6	0.0	7.4	11.2
WSW	0.0	0.2	1.5	1.0	0.2	0.0	2.9	10.2
W	0.0	0.3	1.6	0.9	0.2	0.0	3.0	9.7
WNW	0.0	0.2	2.6	6.1	2.9	0.5	12.3	13.4
NW	0.1	0.1	2.7	16.4	22.8	8.8	50.9	17.4
NNW	0.1	0.9	1.9	2.2	0.8	0.4	6.2	11.3
All	0.3	6.0	19.9	34.4	29.4	10.0	100.0	14.3

Calm (less than one knot) = 0.0%
Period mean wind speed = 14.3 knots
Percent occurrance for 'D' stability class(es) 49.2%

AIR SCIENCES INC.
SBWIND(1.2) 04/12/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'E'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
JANUARY - MARCH 1990

	Speed Class Intervals(kts)							
Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	6.1	9.9	10.7	0.0	0.0	0.0	26.7	5.1
NNE	0.8	6.9	6.1	0.0	0.0	0.0	13.7	5.8
NE	0.0	0.8	0.8	0.0	0.0	0.0	1.5	5.7
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.8	0.0	0.0	0.0	0.0	0.8	4.1
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	1.5	0.0	0.0	0.0	0.0	1.5	4.1
SSE	0.8	4.6	0.0	0.0	0.0	0.0	5.3	3.6
S	1.5	3.8	0.8	0.0	0.0	0.0	6.1	3.6
SSW	0.0	3.8	4.6	0.0	0.0	0.0	8.4	5.9
SW	0.0	3.1	1.5	0.0	0.0	0.0	4.6	6.0
WSW	0.8	2.3	1.5	0.0	0.0	0.0	4.6	5.4
W	0.0	2.3	2.3	0.0	0.0	0.0	4.6	5.4
WNW	0.8	1.5	3.8	0.0	0.0	0.0	6.1	5.8
NW	3.1	0.8	0.8	0.0	0.0	0.0	4.6	3.8
NNW	2.3	5.3	3.8	0.0	0.0	0.0	11.5	5.0
All	16.0	47.3	36.6	0.0	0.0	0.0	100.0	5.1

Calm (less than one knot) = 0.0%
Period mean wind speed = 5.1 knots
Percent occurrance for 'E' stability class(es) 6.1%

AIR SCIENCES INC.
SBWIND(1.2) 04/12/90

APPENDIX C

WIND SPEED FREQUENCY DISTRIBUTIONS

AVERAGE FREQUENCY DISTRIBUTION OF WIND SPEEDS
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
JANUARY 1990
(%)

Day	Wind Speed Intervals (mph) < 10	>=10, < 13	>=13, < 16	>=16, < 19	>=19, < 22	>=22, < 25	>=25, < 28	>=28, < 31	>=31	Max Gust (mph)	Time Period
1	64.2	6.0	4.4	6.7	9.7	6.6	2.1	0.2	0.0	31.1	2
2	35.3	5.6	7.2	9.5	12.2	12.3	8.3	5.4	4.1	40.2	3
3	97.3	2.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	16.9	1
4	99.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	2
5	99.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6	1
6	89.4	1.4	4.3	4.7	0.3	0.0	0.0	0.0	0.0	20.9	3
7	26.7	12.4	8.2	8.5	10.6	13.4	11.1	7.1	2.0	38.0	3
8	16.3	16.5	15.0	13.3	11.8	10.8	7.9	5.1	3.3	39.1	3
9	99.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	2
10	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	2
11	97.9	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2	2
12	53.7	13.1	16.1	11.7	4.6	0.7	0.0	0.0	0.0	25.7	2
13	40.7	23.1	14.9	12.1	6.6	2.2	0.4	0.0	0.0	27.8	3
14	70.6	15.1	10.8	3.0	0.5	0.0	0.0	0.0	0.0	21.4	2
15	59.8	27.8	11.3	1.1	0.0	0.0	0.0	0.0	0.0	22.8	3
16	59.6	12.4	12.1	11.1	4.1	0.6	0.1	0.0	0.0	27.7	3
17	48.3	8.8	12.1	13.9	11.5	4.5	0.8	0.1	0.0	30.3	2
18	99.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7	2
19	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	2
20	92.5	7.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	13.5	2
21	82.6	13.5	3.4	0.4	0.0	0.0	0.0	0.0	0.0	18.2	2
22	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	3
23	79.4	5.4	6.0	5.1	3.0	1.0	0.1	0.0	0.0	26.6	3
24	62.9	30.4	5.4	1.2	0.1	0.0	0.0	0.0	0.0	20.5	3
25	99.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7	2
26	42.0	3.8	3.6	6.3	7.7	9.0	7.9	6.5	13.3	53.1	3
27*	71.3	16.1	9.1	3.3	0.3	0.0	0.0	0.0	0.0	23.2	1
28*	95.3	3.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	16.9	3
29*	42.9	15.7	7.9	7.0	6.5	7.6	5.8	4.4	2.2	38.0	2
30*	38.9	11.4	13.6	15.1	12.4	6.1	1.9	0.4	0.2	37.3	3
31*	4.1	5.5	12.8	22.9	24.4	17.2	7.3	3.6	2.3	49.1	1
All**	70.0	8.4	5.8	5.1	4.1	3.0	1.7	1.1	0.9	53.1	3

* The time periods for these days are incorrect by about 2.5 hours.

** All data on this line are monthly averages of the daily values except for maximum gust and time period which are the maximum gust recorded during the month and the time period of that gust.

AVERAGE FREQUENCY DISTRIBUTION OF WIND SPEEDS
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
FEBRUARY 1990
(%)

Day	Wind Speed Intervals (mph) < 10	>=10, < 13	>=13, < 16	>=16, < 19	>=19, < 22	>=22, < 25	>=25, < 28	>=28, < 31	>=31	Max Gust (mph)	Time Period
1*	6.1	4.2	7.1	9.5	8.3	9.4	10.6	12.4	32.4	52.5	2
2*	64.5	9.2	5.9	6.3	5.7	4.0	2.3	1.2	0.8	39.1	1
3*	86.9	7.0	4.5	1.3	0.2	0.0	0.0	0.0	0.0	22.8	3
4*	23.8	5.6	7.4	11.7	16.4	15.1	9.2	5.2	5.6	49.5	2
5*	91.1	7.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0	16.0	3
6*	50.9	9.8	14.8	14.8	7.6	2.0	0.1	0.0	0.0	26.6	3
7*	9.5	9.2	10.7	13.3	15.4	15.3	11.8	7.9	6.8	44.8	1
8	65.0	6.6	9.1	8.5	6.6	3.3	0.8	0.1	0.0	30.5	3
9	98.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.6	1
10	99.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	2
11	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	2
12	51.8	7.4	7.3	10.7	10.6	8.1	3.0	0.8	0.2	35.0	3
13	17.0	9.1	9.5	12.9	15.2	13.5	9.6	6.6	6.6	44.3	2
14	4.6	10.9	14.9	19.8	21.8	16.9	7.8	2.5	0.8	37.7	1
15	76.7	14.2	6.6	2.3	0.2	0.0	0.0	0.0	0.0	21.8	3
16	23.2	12.4	11.5	16.3	17.3	11.0	5.3	2.4	0.5	35.9	2
17	32.7	23.5	16.2	14.3	9.4	3.3	0.6	0.0	0.0	28.4	2
18	28.2	14.5	10.0	10.2	11.2	10.3	6.8	5.1	3.6	39.8	3
19	29.6	11.2	14.3	15.0	11.6	7.3	5.1	3.4	2.4	42.1	1
20	92.6	4.5	2.8	0.0	0.1	0.0	0.0	0.0	0.0	20.5	3
21	95.6	4.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	15.8	2
22	96.0	3.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	15.1	2
23	93.1	6.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	14.8	2
24	97.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	2
25	98.2	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	3
26	90.3	8.5	1.1	0.1	0.0	0.0	0.0	0.0	0.0	16.6	3
27	96.7	2.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	16.2	3
28	89.2	9.3	1.4	0.1	0.0	0.0	0.0	0.0	0.0	17.1	3
All**	64.6	7.5	5.6	6.0	5.6	4.3	2.6	1.7	2.1	52.5	2

* The time periods for these days are incorrect by about 2.5 hours.
** All data on this line are monthly averages of the daily values except for maximum gust and time period which are the maximum gust recorded during the month and the time period of that gust.

AVERAGE FREQUENCY DISTRIBUTION OF WIND SPEEDS
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
MARCH 1990
(%)

	Wind Speed Intervals (mph)										
Day	< 10	>=10, < 13	>=13, < 16	>=16, < 19	>=19, < 22	>=22, < 25	>=25, < 28	>=28, < 31	>=31	Max Gust (mph)	Time Period
1	70.5	17.1	7.9	3.3	1.1	0.0	0.0	0.0	0.0	23.9	2
2	29.8	15.1	14.6	17.3	13.8	6.6	2.4	0.4	0.0	30.9	2
3	9.8	6.5	12.2	19.2	21.2	16.8	9.7	3.4	1.2	39.3	3
4	16.6	13.9	17.8	21.7	18.2	8.9	2.2	0.6	0.0	32.3	2
5	7.8	6.5	7.3	7.1	7.2	8.7	10.5	13.1	31.8	56.3	2
6	68.3	17.3	10.8	2.8	0.6	0.2	0.0	0.0	0.0	24.1	1
7	82.1	8.2	6.8	2.6	0.2	0.0	0.0	0.0	0.0	20.9	3
8	68.0	17.7	7.5	5.2	1.5	0.1	0.0	0.0	0.0	24.3	3
9	93.8	5.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	16.2	3
10	43.0	9.8	13.5	16.1	10.8	5.2	1.2	0.4	0.0	32.5	3
11	23.3	22.0	17.7	16.1	12.0	6.2	2.1	0.5	0.0	32.8	2
12	6.9	4.0	4.7	10.3	16.3	20.1	16.7	12.1	9.0	40.7	2
13	10.2	8.5	13.0	21.4	22.3	15.4	6.6	2.3	0.3	36.2	1
14	1.7	4.3	11.6	22.3	23.6	15.8	8.2	5.9	6.7	50.4	3
15	80.8	9.5	3.9	2.0	1.7	1.3	0.5	0.1	0.1	34.3	1
16	80.3	16.3	2.9	0.4	0.1	0.0	0.0	0.0	0.0	21.9	1
17	61.7	2.9	6.2	13.4	11.3	3.8	0.6	0.0	0.0	28.2	3
18	74.0	4.6	1.9	5.3	7.7	4.5	1.6	0.3	0.0	36.4	1
19	63.2	9.3	9.4	12.6	4.9	0.5	0.0	0.0	0.0	28.4	3
20	67.8	7.6	10.3	10.3	3.5	0.5	0.0	0.0	0.0	24.1	3
21	39.5	12.6	9.7	10.8	9.4	9.2	5.9	2.2	0.6	35.2	3
22	23.0	8.2	11.4	17.3	17.0	13.1	7.0	2.5	0.6	35.5	3
23	20.3	7.9	12.6	17.0	17.7	13.6	7.3	3.0	0.7	35.2	3
24	48.5	8.1	8.1	12.3	11.7	7.5	3.1	0.7	0.1	33.9	3
25	8.2	5.3	10.5	17.2	20.3	19.2	12.5	5.6	1.1	35.5	2
26	17.0	16.1	21.7	22.3	14.9	6.2	1.6	0.2	0.0	32.5	3
27	28.5	16.2	14.9	14.9	13.8	7.5	2.6	1.2	0.3	37.5	3
28	2.6	6.2	11.3	21.1	25.4	19.1	9.5	3.8	1.1	37.5	3
29	24.0	18.4	19.8	17.0	13.2	6.0	1.4	0.1	0.0	20.9	2
30	60.8	22.0	12.7	3.9	0.4	0.1	0.1	0.0	0.0	29.6	2
31	8.2	8.0	15.6	24.1	22.5	14.2	5.8	1.5	0.1	33.4	3
All*	40.0	10.8	10.6	12.5	11.1	7.4	3.9	1.9	1.7	56.3	2

* All data on this line are monthly averages of the daily values except for maximum gust and time period which are the maximum gust recorded during the month and the time period of that gust.

METEOROLOGICAL DATA SUMMARY
OCTOBER - DECEMBER 1989
SOLEDAD MOUNTAIN PROJECT

for

Noranda Mining Corporation

Lakewood, CO

by

Air Sciences Inc.

Lakewood, CO

Project No. 58-07

January 1990

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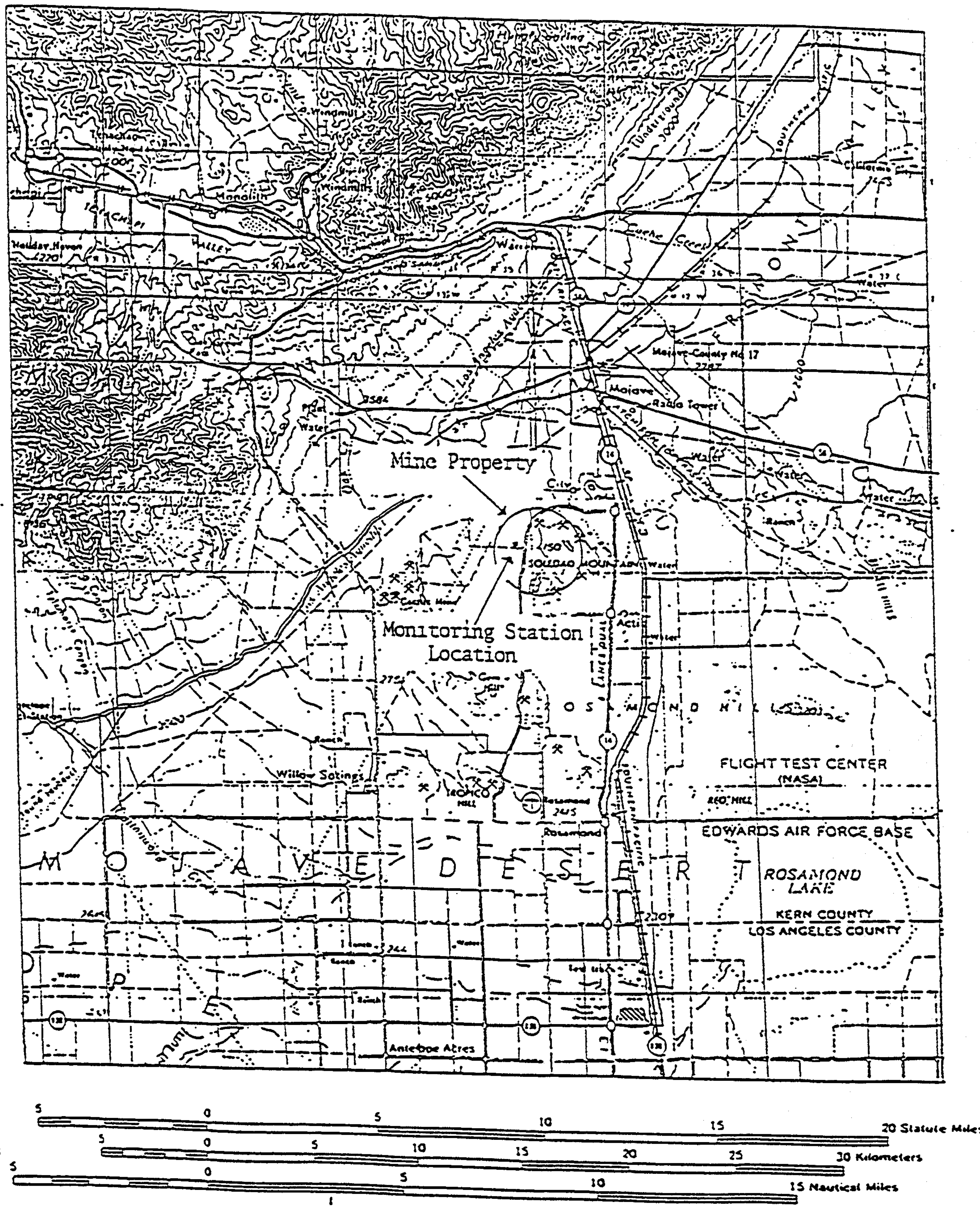
1.0 INTRODUCTION

This report summarizes three months of meteorological data collected near Soledad Mountain in the Mojave Desert of Kern County, California for Noranda Mining Corporation. The monitoring station is near a proposed open-pit mining project known as the Soledad Mountain Project. Data for this report were collected from October 1, 1989 through December 31, 1989. This report summarizes the first quarter of the monitoring program which began on September 29, 1989. Monitoring was performed in accordance with "Sampling Protocol, Golden Queen Mine Project, Mojave, California," (Air Sciences Inc., October, 1989). The purpose of the monitoring was to collect dispersion meteorological data to be used in dispersion modeling and to collect climatological data.

1.1 Location

The Soledad Mountain monitoring station is located on the plains west of Soledad Mountain in the Mojave Desert of southeastern Kern County, California. The site is approximately 12 miles NW of Rosamond Lake and 5 miles SSW of the town of Mojave. The mine pit, waste dumps and processing are expected to be located on the western side of Soledad Mountain, just east of the Mojave-Tropico Road. The monitoring station is located approximately one-quarter mile west of Mojave-Tropico Road on the desert plain in an area where the meteorological data should define the wind patterns that will carry pollutants toward residential areas. The station will be at an approximate elevation of 2,850' MSL at UTM coordinates 3,871 km north and 389 km east (the southwest quarter of Section 1, T 10 N, R 13 W). Vegetation is sparse in this part of the Mojave Desert Basin and consists of sagebrush and widely scattered Joshua trees. The monitoring location is shown on Figure 1.

FIGURE 1
GENERAL PROJECT LOCATION



CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

TRANSVERSE MERCATOR PROJECTION

1.2 Program Description

The parameters of wind speed, wind direction, direction deviation (sigma theta) and temperature are measured and recorded at the monitoring station. The wind parameters are measured by sensors mounted on top a 10-meter meteorological tower. Temperature is measured by a sensor located in an aspirated shield at the 2-meter level on the tower.

The meteorological data are sampled every 10 seconds by a digital Data Acquisition System (DAS) and processed and stored in 15-minute average format and as 8-hour wind speed maximum and frequency distribution data. The DAS digitally stores sine and cosine of wind direction, wind speed and temperature on a time-averaged basis. The 15-minute and 8-hour data, recorded on a solid-state memory module, are regularly transferred by mail to Air Sciences Inc. (Air Sciences) for processing and archiving. EPA methods are used to process the 15-minute data into hourly averages of wind speed, wind direction, wind direction deviation (sigma theta), and temperature as suggested in "On-Site Meteorological Program Guidance for Regulatory Modeling Applications," (EPA-450/4-87-013, Sections 6.0-6.4). Processing of the 8-hour data is performed by the DAS prior to the recording of the data onto the solid-state memory module.

Calibrations of the monitoring equipment were performed in accordance with the sampling protocol. Equipment calibration, audit and data quality assurance procedures are based on EPA guideline documentation and are fully described in the monitoring plan. Copies of the calibrations performed subsequent to the installation are located in Appendix A.

1.3 Data Recovery

Data recovery rates for all parameters are presented in Table 1. Recovery was 100 percent for all meteorological parameters. Data recovery rates for this first quarter of data collection exceeded the minimum EPA recommended annual average rate of recovery for meteorological sampling of 90 percent.

TABLE 1
DATA RECOVERY

Parameter	Percent
Wind Speed	100
Wind Direction	100
Sigma Theta	100
Temperature	100

2.0 METEOROLOGICAL DATA SUMMARY

The meteorological parameters were sampled on site every 10 seconds and digitally processed into 15-minute averages. The 15-minute averages were transmitted to Air Sciences for quality assurance checks and to be used as input for the calculation of 1-hour averages. All summary data presented in this section was produced by the processing of hourly averaged data into tables of summary statistics and SAROAD formatted tables. The meteorological values of wind speed, wind direction and temperature, collected during the quarter, are presented as hourly averages in SAROAD format by month for each parameter in Appendix B.

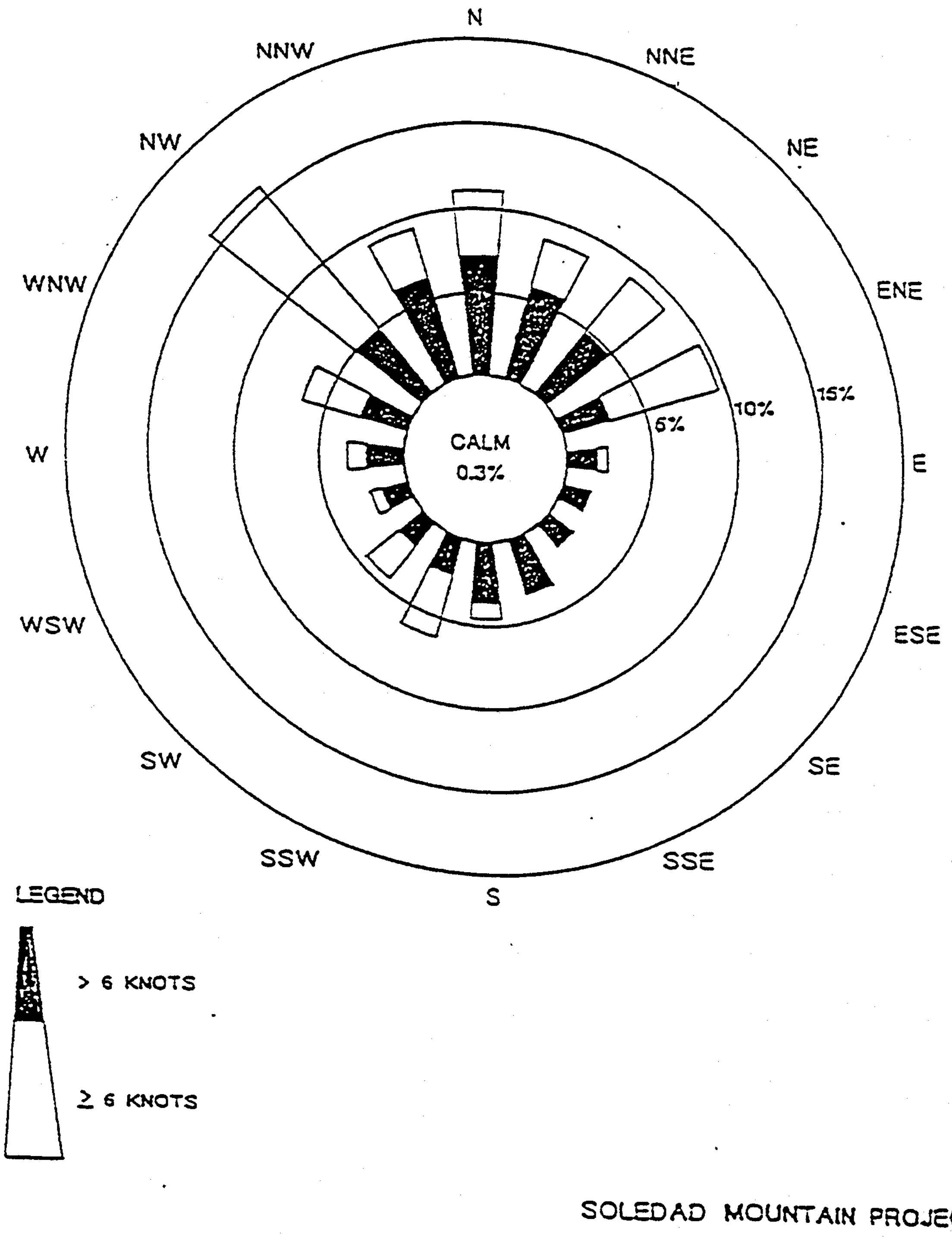
2.1 Winds

The wind frequency distribution by direction and speed for all atmospheric stability classes shown as Figure 2 and Table 2, shows that the highest frequency of winds were from the north (NW through ENE). These northerly winds accounted for over 63 percent of the total winds. The highest wind speed was from the northwest at an average of 12.2 knots (14.0 mph). All other winds were much lower in speed as shown by the overall wind speed for all directions of 6.8 knots (7.8 mph). The frequency distributions by direction and speed for stability classes A through F are included in Appendix C.

Appendix D contains one table for each month of data collection and displays wind speed frequency distributions (histograms). Each table contains the average daily percentages of winds in each wind speed category for each day of the month with a maximum wind gust for the day and a record of the time period in which the maximum wind gust occurred. Time period 1 is defined as the hours of midnight to 8 a.m., period 2 is the hours of 8 a.m. to 4 p.m., and period 3 equals the hours of 4 p.m. to midnight. Frequency distributions were recorded for each 8-hour time period from 10-second wind speed data. These 8-hour histograms were processed by Air Sciences into daily average histograms. The maximum wind gust for the quarter occurred on October 25 during time period 3 and was 50.6 mph.

FIGURE 2

WIND FREQUENCY DISTRIBUTION



SOLEDAD MOUNTAIN PROJECT
MOJAVE, CALIFORNIA
OCTOBER-DECEMBER 1989

AIR SCIENCES INC.
LAKEWOOD, COLORADO

TABLE 2
FREQUENCY OF WINDS BY DIRECTION AND SPEED
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989

	Speed Class Intervals(kts)							
Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	3.3	3.9	3.6	0.1	0.0	0.0	11.0	4.8
NNE	2.4	3.4	2.7	0.1	0.0	0.0	8.7	4.9
NE	1.9	2.9	3.7	0.5	0.1	0.0	9.1	5.9
ENE	1.0	1.9	5.1	1.6	0.0	0.0	9.6	7.2
E	1.0	0.8	0.3	0.3	0.0	0.0	2.4	4.8
ESE	0.9	0.6	0.1	0.0	0.0	0.0	1.6	3.0
SE	1.1	0.7	0.0	0.0	0.0	0.0	1.8	3.0
SSE	1.2	2.3	0.0	0.0	0.0	0.0	3.5	3.3
S	1.2	2.5	0.8	0.0	0.0	0.0	4.6	4.3
SSW	1.1	1.3	1.8	1.4	0.5	0.1	6.2	8.3
SW	0.8	1.1	1.0	1.1	0.4	0.0	4.4	8.4
WSW	0.8	0.8	0.7	0.1	0.0	0.0	2.3	4.7
W	1.4	0.8	0.9	0.3	0.0	0.0	3.3	4.9
WNW	1.8	1.0	1.0	1.6	0.6	0.2	6.3	8.4
NW	3.4	1.5	1.1	4.1	3.9	1.7	15.7	12.2
NNW	3.2	3.1	1.8	0.7	0.3	0.1	9.3	5.4
All	26.4	28.6	24.6	12.0	5.9	2.2	99.7	6.8

Calm (less than one knot) = 0.3%
Period mean wind speed = 6.8 knots

TABLE 3
FREQUENCY OF WINDS BY DIRECTION AND STABILITY
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989

Direction	A	B	C	D	E	F	All
N	0.4	0.2	0.2	2.4	3.6	4.2	11.0
NNE	0.7	0.2	0.8	2.7	1.1	3.2	8.7
NE	1.9	1.2	1.2	2.5	0.4	1.9	9.2
ENE	1.6	2.3	2.5	2.0	0.1	1.2	9.7
E	1.0	0.0	0.1	0.4	0.1	0.7	2.4
ESE	0.7	0.0	0.0	0.0	0.0	0.8	1.6
SE	0.8	0.1	0.0	0.0	0.1	0.7	1.8
SSE	1.2	0.3	0.1	0.3	0.2	1.4	3.5
S	1.1	0.3	0.5	0.6	0.6	1.4	4.6
SSW	0.9	0.3	0.5	2.9	0.3	1.3	6.2
SW	0.4	0.0	0.0	2.5	0.0	1.4	4.4
WSW	0.1	0.0	0.0	0.5	0.4	1.3	2.3
W	0.2	0.0	0.0	0.9	0.3	1.8	3.3
WNW	0.1	0.0	0.0	3.2	0.5	2.3	6.2
NW	0.5	0.0	0.1	10.8	0.4	3.8	15.7
NNW	0.3	0.0	0.0	2.9	1.4	4.7	9.3
All	12.1	5.1	6.2	34.8	9.4	32.1	99.7

Table 3 shows the frequency distribution by atmospheric stability categories A through F. Categories A through D occur in the daytime and categories D through F occur at night. Stability class was calculated by the method of Irwin (1980) which uses wind speed, standard deviation of wind direction and local sunrise and sunset times for determining daytime and nighttime periods. A nighttime correction is applied to the stability class determination. The assumed terrain mixing height was 15 centimeters. Table 3 shows that both daytime and nighttime winds were predominately out of the north (NW through ENE).

2.2 Temperature

Temperature data summaries are presented in Table 4. Average temperature for the data collection period was 12.0 °C (53.6 °F). The coldest month of the period was December and the warmest was October. The minimum temperature recorded was -6.8 °C (19.8 °F) and the maximum was 31.7 °C (89.0 °F).

TABLE 4
MONTHLY TEMPERATURE MEANS AND EXTREMES
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989
(°C)

Month	Average Daily Maximum	Average Daily Minimum	Daily Average	Monthly Maximum	Monthly Minimum
Oct	23.2	9.0	16.2	31.7	-2.3
Nov	20.6	4.8	12.4	27.3	-4.8
Dec	16.5	-0.9	7.4	22.7	-6.8
Qtr	20.1	4.3	12.0	31.7	-6.8

APPENDIX A

Calibration Records

WIND SPEED CALIBRATION
CAMPBELL SCIENTIFIC CR10 LOGGER

Sensor Model No:	014	Client:	Golden Queen / Soledad
Sensor Serial No:	C1136	Job No:	58-7
Sensor Height:	1.5 m	Site:	In House
Logger Ser. No.:	4813	Date:	9-28-89
Name:	Jim King	Time:	5:30 MST

I. SYSTEM INSPECTION

	PASS	FAIL
Bearings	New	
Cable	✓	
Cups	✓	

II. SYSTEM LINEARITY CHECK

	Input Frequency (Hz)	Target (mph)	CR10 Reading (mph)
1.	1.0	2.789	2.789
2.	10.0	18.890	18.890
3.	0.0	1.0	1.0
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Target (mph) = (Hz × 1.789) + 1.0

Target (m/s) = (Hz × 0.798) + 0.447

Comments: used 30 + 300 RPM Synchronous AC Motors

Signature

AIR SCIENCES INC. 2/87

WIND DIRECTION CALIBRATION
CAMPBELL SCIENTIFIC LOGGER
CR10

Sensor Model No:	024	Client:	Golden Queen/Solid
Sensor Serial No:	062-81	Job No:	58-7
Sensor Height:	10 m	Site:	met tower
Logger Ser. No.:	5392	Date:	9-29-89
Time:	9:00 PST	Name:	Jim King

I. SYSTEM INSPECTION

	PASS	FAIL
Bearings	✓	
Cable	✓	
Vane	✓	

II. SYSTEM LINEARITY CHECK

	Orientation	Target (degrees)	CR10 Reading (degrees)	Difference
1.	Vane	180.5	180	0.5°
	Tail	360.5	360	0.5
2.	Vane	306.5	305	1.5
	Tail	126.5	127	-0.5
3.	Vane	221.5	222	-0.5
	Tail	41.5	40	1.5
4.	Vane			
	Tail			
5.	Vane			
	Tail			
6.	Vane			
	Tail			

Comments: Declination 15.5 Deg. East
sensor slope .71498
Set Screw = 180.03
Tolerance = ±5°

Signature:

TEMPERATURE CALIBRATION
CAMPBELL SCIENTIFIC [illegible] LOGGER
CR10

ensor Model No :	107	Client :	Golden Queen / Soledad
ensor Serial No :	NA	Job No :	58-7
ensor Height :	2 M	Site :	Met Tower
ogger Ser. No. :	5392	Date :	9-29
Name :	Jim King	Time :	830 PST

. SYSTEM INSPECTION

	PASS	FAIL
Radiation Shield	✓	
Cable	✓	

I. SYSTEM PSYCHROMETER CHECK

	Psychrometer ( ) Measured	Corrected	CR10 Reading (degrees)
1.	23.6		23.6
2.	24.2		24.2
3.	24.7		24.7
4.	25.7		25.6
5.	26.3		26.3
6.	26.8		26.8
7.	27.8		27.8
8.	28.4		28.4
9.			
10.			
Average			

omments:

Signature Jim King

APPENDIX B

SAROAD Tables

HOURLY AVERAGED WIND SPEED
OCTOBER 1989
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A METERS PER SECOND

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	72	64	51	29	17	18	0	11	15	16	32	20	19	32	54	65	68	40	36	36	42	42	32	30	36
2	34	35	42	43	39	45	42	69	81	93	94	105	109	109	105	101	99	90	77	76	43	14	44	47	68
3	36	46	47	44	29	31	64	68	51	33	22	23	22	24	32	59	81	85	83	89	94	63	38	32	50
4	31	38	14	12	10	10	18	23	24	42	46	46	42	40	42	41	42	30	15	22	28	39	32	27	30
5	32	36	29	11	13	11	10	18	38	42	44	34	23	23	21	18	21	24	27	10	16	32	43	44	26
6	19	22	34	21	16	25	13	9	20	16	34	38	33	44	51	64	71	66	72	62	59	60	64	62	41
7	59	70	75	67	37	30	25	13	22	39	49	51	47	42	52	46	45	33	36	37	37	20	19	25	41
8	23	26	21	11	17	32	35	35	38	33	39	42	30	36	30	33	33	48	70	60	18	15	16	8	32
9	12	16	12	14	6	9	9	12	16	15	31	29	29	35	38	29	21	11	21	24	33	14	16	12	19
10	21	25	13	13	22	25	19	14	13	17	14	16	26	30	33	43	46	40	63	73	68	69	60	41	34
11	13	13	14	23	20	31	29	20	34	24	22	25	27	31	39	56	54	42	44	26	36	12	11	0	28
12	9	11	13	10	12	8	8	10	11	17	18	25	43	43	54	58	52	36	24	32	37	30	12	15	25
13	11	8	8	0	7	18	12	10	12	17	17	31	42	45	49	58	54	31	18	23	20	17	19	12	23
14	15	22	17	13	16	22	40	42	56	51	77	90	106	117	127	115	110	118	129	112	112	111	75	94	74
15	116	128	112	116	92	33	34	88	93	98	110	116	114	116	105	118	124	130	127	107	97	81	62	38	98
16	29	17	16	13	13	12	26	10	17	18	24	30	34	29	27	25	23	21	13	14	13	14	25	12	20
17	11	16	11	9	35	45	46	45	45	53	54	50	53	52	50	49	40	31	25	19	21	23	19	24	34
18	7	11	13	21	39	42	13	30	34	46	42	32	32	34	33	27	25	19	17	21	18	30	27	16	26
19	13	8	12	7	15	24	10	18	33	34	53	45	37	29	26	20	12	14	12	12	34	37	40	38	24
20	38	13	12	12	14	11	10	29	62	79	77	75	87	99	99	105	101	75	36	31	49	49	51	34	52
21	71	59	58	49	47	56	40	55	80	63	75	86	86	94	93	88	77	51	38	38	40	38	34	21	60
22	16	24	16	16	20	20	20	19	22	23	27	22	16	22	13	8	13	10	9	11	21	22	25	42	19
23	40	21	37	54	46	40	32	51	67	70	77	81	83	84	76	75	58	40	30	36	34	30	20	19	50
24	30	34	24	23	15	11	20	16	21	43	86	89	66	63	58	.65	69	52	19	23	27	30	30	37	40
25	27	36	76	76	89	82	71	88	93	105	96	72	86	100	114	69	56	118	138	136	130	101	88	98	89
26	92	94	84	34	17	9	13	11	14	14	28	22	22	19	23	20	38	56	72	67	65	44	24	21	38
27	21	42	98	98	76	49	51	70	79	71	62	74	85	103	120	111	115	85	67	108	89	131	137	139	86
28	120	100	61	50	51	37	20	20	31	40	45	42	37	36	35	38	40	34	35	47	38	34	24	30	44
29	38	46	55	56	55	56	52	55	56	68	72	72	67	62	58	56	50	45	56	47	15	29	13	12	50
30	10	21	28	15	9	15	10	13	32	37	47	44	45	40	32	25	14	10	17	9	13	19	13	8	22
31	8	9	7	6	6	11	8	9	17	32	31	30	37	33	32	25	13	10	14	7	11	8	8	9	16
AVERAGE	35	36	36	31	29	28	27	32	40	44	50	50	51	54	56	55	54	48	46	46	44	41	36	34	42

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 1/16/90

HOURLY AVERAGED WIND DIRECTION
OCTOBER 1989
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE DEGREES AZIMUTH

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	305	303	324	10	24	5	21	37	148	118	29	89	221	231	207	207	231	282	299	260	273	259	245	224
2	205	195	194	187	186	178	189	215	218	210	219	217	211	211	211	212	211	216	217	208	209	135	309	298
3	290	303	272	255	259	294	312	316	316	314	42	44	17	180	206	295	317	312	310	307	312	315	334	357
4	343	332	54	64	122	344	1	23	21	47	57	56	61	47	54	56	50	37	24	351	13	350	348	6
5	6	346	329	304	255	342	351	37	43	56	62	61	134	148	342	50	129	155	257	169	336	304	299	296
6	319	334	329	30	332	346	348	117	150	166	153	184	194	204	296	315	316	300	304	298	301	303	306	307
7	307	310	310	312	342	6	16	67	22	42	56	64	68	64	61	63	53	71	360	352	352	14	8	7
8	19	1	7	308	311	7	13	19	34	79	73	73	57	69	52	33	49	330	314	311	19	57	22	113
9	328	340	30	49	292	325	321	157	195	160	45	53	58	70	56	46	61	280	26	325	314	50	30	103
10	27	347	359	37	338	346	15	38	275	161	134	135	141	188	218	211	231	280	302	301	302	302	304	314
11	137	110	52	26	339	335	34	351	355	17	154	193	188	182	199	200	255	308	302	207	252	181	201	207
12	218	297	199	201	35	348	351	74	179	202	150	167	204	205	194	212	223	220	351	278	290	291	59	24
13	302	118	61	54	116	350	9	124	164	158	157	182	186	196	210	209	215	207	210	210	231	225	206	175
14	205	205	190	193	196	198	258	269	236	256	312	307	307	304	309	307	303	310	310	306	307	306	293	303
15	301	307	304	303	294	106	296	280	298	307	312	314	318	316	315	317	313	311	311	312	313	316	317	327
16	21	43	76	358	201	114	7	136	151	166	80	50	54	40	79	78	63	31	88	7	5	33	350	331
17	306	328	306	290	2	21	32	37	40	45	67	70	59	49	53	58	56	72	35	325	318	303	301	305
18	48	9	344	320	350	5	255	19	43	55	65	82	62	63	59	98	55	109	309	335	319	323	301	8
19	317	21	270	87	329	356	11	233	18	39	60	62	44	40	48	44	130	168	46	36	4	358	356	2
20	343	43	15	32	7	10	299	193	207	224	227	223	233	224	224	230	227	218	237	202	202	184	210	247
21	219	222	222	225	235	205	225	210	206	217	204	211	207	205	203	209	213	214	217	225	213	218	207	180
22	155	188	167	160	236	207	175	166	210	129	138	220	70	8	43	320	328	132	178	163	183	166	190	226
23	238	207	206	211	211	217	208	211	206	210	208	208	211	219	219	213	206	189	181	194	197	198	169	134
24	166	192	175	163	154	173	164	168	171	227	306	311	281	276	256	206	309	299	273	201	239	217	236	276
25	243	282	312	304	309	302	300	301	302	316	315	309	303	300	313	305	294	283	303	307	308	315	317	313
26	310	312	315	345	18	210	14	88	53	98	59	69	118	150	192	183	311	314	312	310	316	317	285	26
27	53	313	312	311	323	321	297	326	309	316	302	295	305	313	312	312	320	310	330	321	347	337	328	315
28	313	336	345	337	321	346	351	14	20	46	63	58	72	55	62	63	67	42	22	41	44	29	10	16
29	50	41	54	50	50	53	53	58	69	67	63	70	69	69	71	74	71	83	94	55	353	358	284	360
30	18	14	340	329	246	331	304	51	39	64	64	63	54	60	53	30	22	59	15	8	356	318	322	354
31	80	324	84	26	333	350	351	30	30	34	41	58	63	62	68	59	95	168	44	21	327	334	339	346

* Indicates calibration of sensors
** Indicates invalid data

HOURLY AVERAGED TEMPERATURE
OCTOBER 1989
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A DEGREE CELSIUS

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	147	145	141	140	136	120	103	153	186	206	224	240	254	266	270	261	239	201	187	179	172	164	150	138	184
2	133	128	121	121	112	107	116	144	164	176	189	195	199	200	194	181	160	142	129	125	115	99	102	100	144
3	90	87	95	100	87	78	99	121	145	161	178	188	202	208	214	204	178	150	137	131	127	123	116	112	139
4	108	107	103	97	87	71	66	120	151	175	199	213	221	229	235	238	233	208	172	163	155	144	132	139	157
5	131	117	98	85	74	66	86	176	200	219	232	243	247	253	256	257	251	221	192	158	170	174	175	171	177
6	160	165	168	160	128	101	122	177	207	230	247	258	265	270	272	263	246	220	208	203	196	190	188	188	201
7	187	187	182	176	169	162	161	197	221	237	254	264	271	280	285	282	274	257	211	194	180	163	162	166	213
8	171	174	166	116	100	107	150	198	226	252	265	277	282	289	291	290	282	245	227	217	201	193	190	176	212
9	156	135	136	138	132	113	108	191	224	247	268	283	295	300	302	302	295	251	202	213	218	204	204	193	213
10	196	174	147	175	172	154	149	193	231	250	271	294	303	310	311	307	287	248	228	222	216	213	210	204	228
11	194	187	183	182	179	180	185	225	244	251	274	293	305	313	317	313	287	247	234	218	210	185	176	160	231
12	147	160	170	161	165	158	141	188	220	242	263	288	303	308	310	304	292	259	235	219	215	209	198	206	223
13	207	191	181	172	166	144	127	190	228	249	272	291	302	309	310	296	273	235	209	196	194	176	173	164	219
14	150	152	140	140	107	128	154	186	205	215	221	227	229	225	221	211	199	184	178	176	170	163	160	159	179
15	157	155	154	152	150	149	155	165	188	201	211	215	222	222	218	203	186	167	160	159	160	159	157	151	176
16	148	140	137	137	111	98	94	153	193	208	228	239	252	259	263	263	255	211	183	176	174	168	158	125	182
17	122	112	108	103	122	135	145	191	214	237	252	263	272	278	279	277	267	248	207	176	167	161	143	139	192
18	111	133	111	113	113	122	119	174	222	235	252	263	270	275	277	276	267	227	161	150	159	164	154	132	187
19	112	95	89	78	83	92	92	162	201	220	240	245	251	258	260	257	247	203	160	155	166	167	155	151	172
20	134	117	109	104	93	97	92	142	173	181	178	191	196	187	181	159	147	139	134	128	125	124	126	126	141
21	128	126	126	126	126	123	120	131	139	147	158	169	173	172	169	165	146	135	134	130	122	120	125	102	138
22	105	105	105	95	84	86	95	129	151	157	157	149	150	142	142	138	136	131	123	131	134	126	123	134	126
23	131	122	133	137	134	132	131	143	156	168	176	185	194	197	197	193	179	153	132	124	116	116	110	100	148
24	88	89	81	96	88	71	86	122	158	177	183	186	191	193	195	183	163	149	132	125	130	116	122	118	135
25	107	115	109	105	93	84	82	93	108	113	126	138	125	126	123	113	104	97	90	87	80	78	78	76	102
26	73	70	60	60	36	12	19	78	113	133	143	153	163	174	177	174	154	115	102	99	99	91	83	81	103
27	86	85	82	79	75	73	80	105	120	140	163	185	184	174	161	147	124	108	105	101	97	98	97	92	115
28	89	92	89	88	85	80	56	70	103	127	149	157	164	172	175	175	164	139	112	115	95	86	69	62	113
29	85	67	78	71	68	67	64	75	98	108	124	134	141	147	151	151	142	131	120	99	55	49	32	20	95
30	15	30	17	-2	-20	-23	-11	55	112	131	140	154	161	167	160	166	156	116	70	59	62	44	29	28	76
31	22	21	19	25	36	28	18	64	131	146	164	171	179	181	186	185	174	112	77	70	88	59	44	38	93
AVERAGE	125	122	118	114	106	100	103	146	175	192	206	218	225	229	229	224	210	182	160	152	147	140	134	127	162

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 1/16/90

HOURLY AVERAGED WIND SPEED
NOVEMBER 1989
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A METERS PER SECOND

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	14	12	12	17	17	25	26	42	34	38	48	59	50	46	42	30	30	33	23	19	32	39	33	25	31
2	10	12	13	11	8	11	17	25	40	37	35	37	38	36	32	25	16	13	16	12	17	15	6	7	20
3	9	7	7	10	8	12	16	22	28	33	33	32	25	28	21	19	17	18	9	9	8	10	14	15	17
4	9	9	11	12	8	20	14	15	14	9	17	30	41	37	58	69	62	65	32	25	16	23	19	21	27
5	34	25	21	14	25	17	18	18	20	34	71	67	79	96	92	67	41	45	34	29	32	26	21	19	39
6	28	28	35	44	34	82	85	89	99	69	34	42	29	22	42	76	85	97	100	98	95	64	102	132	67
7	94	70	62	98	65	49	67	85	93	89	80	75	83	94	91	91	81	86	105	79	36	15	13	16	72
8	13	6	11	21	42	31	40	36	33	39	42	43	46	46	40	39	38	34	42	35	17	39	32	11	32
9	9	9	6	10	11	15	30	26	33	31	37	40	38	38	30	25	12	19	13	10	26	30	17	18	22
10	25	11	8	27	30	22	10	11	29	27	33	31	29	30	34	25	16	16	10	12	12	15	7	8	20
11	12	11	6	13	12	14	8	10	8	13	21	32	25	25	24	25	15	13	7	8	8	7	8	10	14
12	10	14	10	12	9	19	17	10	20	30	29	28	46	73	73	74	80	57	35	25	18	21	26	51	33
13	42	56	66	57	75	98	83	78	79	64	72	97	87	88	95	92	91	92	84	54	60	57	59	80	75
14	84	90	77	38	78	73	64	38	31	28	21	33	35	39	34	25	14	15	9	11	33	43	32	38	41
15	33	29	39	34	30	40	23	38	30	36	45	44	37	34	33	24	17	20	14	19	33	25	22	9	30
16	13	10	11	10	13	9	15	7	8	34	42	38	31	33	22	18	8	18	9	8	10	11	12	11	17
17	14	26	19	17	9	16	17	21	10	16	29	21	40	44	41	34	24	35	36	38	33	42	34	25	27
18	23	32	25	19	21	26	32	30	44	30	44	46	46	53	52	46	40	32	18	17	43	36	35	31	35
19	30	34	35	23	30	33	24	7	16	42	30	34	41	38	37	28	24	31	26	33	37	41	21	12	30
20	12	15	22	23	12	18	7	8	15	13	22	12	15	13	26	30	28	28	29	18	17	16	16	14	18
21	46	54	47	63	25	26	30	44	67	83	90	97	102	96	87	95	105	108	94	85	78	70	26	31	69
22	15	16	10	13	22	13	11	9	8	8	11	18	17	17	19	10	5	16	9	8	8	18	15	12	13
23	10	13	8	15	14	15	17	11	8	17	28	23	59	92	78	66	66	65	66	30	51	46	14	17	35
24	24	37	27	64	99	46	52	72	46	39	58	68	85	81	86	102	73	59	33	21	16	22	43	69	55
25	67	76	54	39	34	45	20	37	44	46	59	76	84	100	79	73	72	60	71	68	57	74	80	76	62
26	68	70	72	54	63	59	102	49	62	80	103	106	101	103	82	68	77	102	134	106	96	79	82	33	81
27	26	36	40	35	32	32	30	28	37	46	58	57	76	76	72	60	62	68	38	25	28	14	17	16	42
28	30	28	33	25	23	29	24	29	31	50	55	56	63	65	60	57	63	61	26	20	9	9	12	13	36
29	10	36	30	51	50	40	41	43	41	46	43	38	38	46	45	40	34	25	24	32	35	42	36	17	37
30	11	7	10	8	10	8	7	19	20	40	38	29	28	26	25	10	19	15	8	7	10	17	16	14	17
AVERAGE	28	29	28	29	31	31	32	32	35	39	45	47	50	54	52	49	44	45	38	32	32	32	29	28	37

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 1/16/90

HOURLY AVERAGED WIND DIRECTION
NOVEMBER 1989
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE DEGREES AZIMUTH

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	336	265	254	293	6	315	327	19	38	65	66	70	68	63	61	83	89	111	35	319	12	19	18	340
2	307	323	296	304	306	275	328	15	37	45	61	65	60	70	53	61	69	201	10	6	327	354	33	62
3	358	332	347	13	38	27	342	9	31	25	42	70	59	65	106	31	2	358	350	56	41	305	306	245
4	279	87	284	296	297	7	356	14	127	19	120	169	174	207	308	321	319	303	255	291	15	166	194	231
5	290	306	25	171	223	239	161	178	219	260	307	306	305	314	309	300	261	247	239	175	266	177	125	135
6	294	305	335	42	356	356	334	326	309	326	71	67	83	99	321	323	319	316	317	315	311	299	309	312
7	329	337	320	306	323	335	320	314	312	312	312	307	315	313	310	318	321	315	316	312	332	81	145	325
8	64	33	275	326	11	9	7	14	26	44	64	67	57	63	66	72	68	19	350	355	301	354	350	13
9	292	135	67	325	330	358	356	5	23	32	41	58	72	76	80	75	119	302	358	346	337	350	331	328
10	344	246	341	344	350	333	71	15	21	59	48	61	65	64	56	56	30	329	36	41	15	331	52	190
11	352	360	352	230	301	326	267	140	121	149	198	26	49	46	51	65	66	302	79	170	65	19	155	293
12	308	288	280	28	219	165	333	193	170	174	177	212	313	309	311	316	321	308	271	276	220	157	130	311
13	310	324	343	333	327	322	309	324	326	356	328	329	324	327	326	316	310	304	302	298	289	280	283	296
14	298	301	305	338	312	327	335	1	25	24	41	72	69	76	71	70	62	240	15	358	6	31	10	356
15	1	343	348	354	8	2	329	3	15	43	63	64	68	70	60	51	8	354	329	319	337	308	297	290
16	333	285	325	61	326	310	12	142	99	36	44	73	58	59	69	130	323	228	63	14	261	220	98	42
17	5	359	5	37	128	26	315	20	201	119	37	41	60	66	70	49	31	43	20	22	47	349	360	27
18	4	46	3	276	338	5	7	33	55	60	65	65	64	65	72	84	83	112	358	329	354	338	342	339
19	354	4	359	356	9	6	302	344	80	31	47	51	62	74	74	54	39	5	346	358	23	6	269	321
20	337	342	358	277	278	251	86	199	219	329	36	161	178	202	175	172	167	146	171	253	189	297	32	111
21	320	313	313	323	320	348	312	311	298	316	313	310	316	313	323	328	318	319	319	316	316	323	360	4
22	356	351	42	350	346	5	20	324	135	146	117	28	109	147	146	141	215	240	238	217	208	254	270	159
23	205	190	188	292	104	151	13	97	167	183	187	218	325	316	313	309	313	324	348	243	305	271	106	225
24	204	248	274	305	319	277	273	317	204	205	269	314	305	297	303	309	301	287	205	175	176	246	303	318
25	326	317	290	277	350	270	191	209	205	222	219	214	211	212	224	218	215	210	212	209	212	220	215	202
26	204	212	206	216	297	277	319	275	295	318	314	311	297	306	305	312	328	318	310	313	315	316	322	354
27	355	355	355	353	357	350	351	6	43	59	63	68	69	71	76	77	87	96	61	34	10	343	7	9
28	21	12	11	36	20	19	10	6	24	63	70	62	62	58	66	70	73	86	16	300	342	7	348	355
29	25	3	35	15	1	358	1	18	31	53	54	65	63	63	69	72	71	31	5	338	353	351	342	328
30	32	1	277	357	21	5	275	50	10	30	32	35	41	55	26	32	45	343	204	326	293	27	9	5

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 1/16/90

HOURLY AVERAGED TEMPERATURE
NOVEMBER 1989
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A DEGREE CELSIUS

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	35	10	9	3	6	38	34	94	129	151	162	174	183	192	194	192	179	150	117	87	87	88	82	50	102
2	26	32	22	2	2	-1	-2	82	131	146	160	172	179	187	189	189	179	122	79	83	58	60	43	29	90
3	39	36	31	34	20	21	24	106	149	162	182	195	206	214	213	218	202	136	106	92	122	114	106	78	117
4	64	74	74	48	41	57	62	101	149	185	215	229	242	254	257	240	216	189	172	160	145	135	125	133	149
5	156	129	114	124	105	119	111	141	190	218	226	236	239	228	219	210	191	168	153	146	145	137	114	104	163
6	127	125	127	125	124	121	120	137	158	184	199	205	212	217	213	190	158	130	122	118	121	123	116	123	150
7	112	107	113	119	114	109	107	110	126	148	171	187	188	190	183	173	151	133	125	124	117	107	98	67	132
8	57	44	32	36	49	63	59	100	134	157	175	190	201	210	213	211	197	152	109	114	91	89	85	59	118
9	40	38	57	48	29	35	57	105	161	180	192	213	223	229	231	230	215	135	116	103	105	119	85	77	126
10	74	57	55	71	90	69	63	130	191	213	224	235	244	250	254	250	233	160	138	145	141	139	113	97	152
11	89	88	88	71	81	75	86	130	194	221	230	235	240	253	257	254	235	167	140	122	105	116	117	112	155
12	87	74	87	93	106	138	150	175	206	228	249	265	273	268	259	244	209	184	167	145	133	143	150	157	175
13	161	161	161	157	146	143	146	159	170	187	212	209	227	232	223	210	193	184	171	167	162	153	141	141	176
14	137	132	120	129	128	121	124	131	163	177	194	206	216	223	224	221	203	142	118	116	108	131	105	94	153
15	87	75	71	62	73	67	30	113	138	169	188	191	198	205	205	197	169	117	105	100	117	122	101	70	124
16	54	36	31	19	38	22	17	65	147	165	178	193	202	209	213	209	191	114	90	94	80	56	72	122	109
17	124	104	56	53	30	31	42	89	135	169	181	202	212	216	215	214	192	172	153	140	150	106	98	113	134
18	119	133	92	73	62	67	76	128	160	174	186	196	207	216	219	215	199	167	131	107	107	108	93	84	138
19	83	95	97	91	70	73	62	91	155	170	191	205	216	219	224	220	199	151	121	117	142	107	94	74	136
20	84	70	84	70	52	42	58	70	70	126	151	184	219	229	233	216	193	174	157	133	124	125	111	141	130
21	159	164	160	163	152	147	155	178	198	210	219	223	224	223	217	207	182	171	165	162	155	159	146	140	178
22	101	63	74	61	43	41	41	73	131	159	190	202	216	213	210	206	172	131	112	103	94	108	126	132	125
23	122	104	95	112	92	79	114	135	172	201	214	233	239	232	223	210	182	159	143	138	141	133	116	106	154
24	127	137	141	126	134	133	128	134	142	161	181	181	187	176	160	146	126	113	108	110	100	91	113	117	136
25	114	116	101	99	97	93	80	107	119	143	161	173	178	157	153	136	121	110	112	110	103	104	104	101	121
26	101	101	95	93	93	83	79	89	98	102	106	109	107	103	99	93	78	70	62	57	55	53	52	42	84
27	8	-3	-2	-18	-17	-10	-13	19	58	79	91	104	117	122	124	122	113	106	77	54	38	23	15	1	50
28	12	10	11	6	3	-5	-1	22	47	67	80	96	110	119	122	118	105	97	59	9	-14	-23	-25	-35	41
29	-48	-21	-11	-11	-4	-7	-11	26	62	92	107	118	130	137	138	136	121	68	25	21	19	17	14	0	47
30	-19	-10	-33	-26	-36	-20	-40	-6	68	97	110	120	138	143	146	145	125	47	39	35	13	26	64	31	48
AVERAGE	81	76	72	68	64	64	66	101	138	161	178	190	199	202	201	194	174	137	116	107	102	99	92	85	124

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 1/16/90

HOURLY AVERAGED WIND SPEED
DECEMBER 1989
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A METERS PER SECOND

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	8	8	9	5	14	0	14	6	11	25	41	37	30	33	30	26	18	25	18	31	16	23	11	9	19
2	17	26	33	26	9	11	30	34	30	35	34	30	34	36	32	29	18	14	10	20	38	41	34	30	27
3	32	35	33	39	42	46	51	50	51	52	40	45	41	37	35	29	15	13	10	19	22	32	11	7	33
4	6	12	11	8	9	8	12	11	9	13	11	12	17	19	23	21	19	17	9	7	12	19	13	14	13
5	13	17	14	10	22	23	12	11	11	21	34	27	17	61	75	97	98	77	76	134	145	155	152	157	61
6	127	61	127	99	55	31	50	28	30	30	38	35	30	27	19	14	12	21	10	16	10	15	10	10	38
7	12	8	8	11	6	15	13	9	8	22	23	41	30	26	25	25	21	28	12	16	15	9	9	9	17
8	15	13	10	13	11	8	13	8	9	8	24	20	16	16	19	24	21	19	14	16	18	17	19	16	15
9	17	12	13	15	9	12	20	12	13	15	20	22	30	28	60	71	77	47	30	32	34	56	34	26	29
10	49	29	28	21	51	47	66	70	90	56	53	52	46	33	26	27	26	32	42	40	41	20	27	21	41
11	40	37	39	42	41	39	50	41	37	63	82	76	69	72	67	61	58	59	28	35	21	28	39	28	48
12	30	23	33	30	6	24	25	13	6	33	33	32	31	34	29	21	14	9	12	12	11	16	19	7	21
13	9	9	13	14	7	14	8	17	27	30	29	32	29	25	29	20	10	20	21	23	16	5	21	18	19
14	15	13	17	7	12	16	16	24	31	27	16	31	30	16	16	12	8	13	8	12	14	12	11	10	16
15	6	16	13	14	9	16	17	16	13	11	15	23	23	17	23	19	26	21	14	17	11	33	16	24	17
16	34	16	17	18	18	10	13	13	12	28	34	30	36	34	24	23	9	14	6	12	10	10	17	25	19
17	11	8	8	10	10	10	8	8	14	27	29	46	49	38	75	78	68	34	26	19	24	14	18	20	27
18	19	16	19	16	17	13	19	13	13	33	41	41	46	54	67	59	43	22	21	24	22	17	16	13	28
19	15	19	11	13	8	5	28	37	34	14	21	19	28	26	20	25	12	10	12	7	14	22	21	8	18
20	9	7	12	13	14	8	10	13	7	9	16	15	18	18	22	16	25	17	13	12	8	8	11	23	14
21	37	34	17	10	5	16	12	7	7	8	15	20	34	27	18	13	12	14	8	8	10	10	10	8	15
22	8	7	11	13	14	8	7	20	28	43	39	38	31	28	31	34	28	22	26	24	31	36	32	19	24
23	13	13	15	8	7	8	7	19	36	41	38	32	34	34	32	27	12	19	15	12	10	12	7	11	19
24	17	11	6	8	8	13	12	8	10	15	20	33	37	28	24	20	19	16	12	9	11	18	11	10	16
25	14	9	14	18	8	10	23	42	42	38	39	34	37	34	33	20	7	12	7	17	13	29	34	13	23
26	12	13	6	11	13	13	20	11	9	10	16	30	33	30	30	20	18	7	17	7	12	14	12	13	16
27	9	17	19	10	19	10	6	9	6	12	21	34	51	42	50	66	45	42	48	40	39	43	32	44	30
28	32	42	21	28	42	49	51	62	44	66	60	85	99	91	116	110	103	91	89	94	97	91	55	32	69
29	13	16	11	12	26	44	60	68	55	46	35	73	112	122	107	96	51	26	17	19	45	14	44	37	48
30	14	14	27	24	17	15	16	9	10	11	17	25	21	24	23	12	16	20	19	13	7	11	15	13	16
31	13	5	8	6	6	11	9	8	13	13	21	29	25	30	32	31	16	16	16	15	23	28	15	31	18
AVERAGE	21	18	20	18	17	18	23	22	23	28	31	35	38	37	40	37	30	26	21	25	26	28	25	23	26

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 1/16/90

HOURLY AVERAGED WIND DIRECTION
DECEMBER 1989
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE DEGREES AZIMUTH

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	10	301	40	20	353	317	337	6	21	30	37	58	73	79	72	70	34	340	341	354	344	343	42	125
2	341	6	354	352	315	20	12	11	15	49	66	55	46	46	57	76	65	250	22	343	14	5	353	334
3	334	346	353	358	6	10	33	42	29	39	46	57	64	58	68	55	47	1	38	354	299	297	314	16
4	354	321	347	62	339	346	207	243	179	173	110	132	152	169	143	115	169	267	82	65	154	349	10	305
5	325	215	51	32	15	340	7	1	55	322	103	103	185	301	329	326	322	310	286	321	318	316	316	316
6	318	346	308	317	346	32	18	6	11	24	59	78	106	64	85	21	26	301	156	286	349	317	312	235
7	345	20	357	312	34	277	265	283	156	163	71	35	32	42	65	54	29	338	161	290	353	360	261	258
8	295	312	306	321	282	323	320	317	33	104	28	39	158	150	182	184	187	203	236	259	274	240	279	238
9	281	303	233	266	174	135	356	21	170	144	168	177	111	100	306	307	319	327	12	11	29	359	346	316
10	327	360	344	22	17	337	332	329	314	32	54	54	52	61	83	65	46	11	15	23	339	308	342	304
11	350	5	25	35	24	21	58	36	41	67	68	68	67	70	71	67	89	98	31	348	354	337	8	4
12	348	352	343	332	254	337	294	312	101	45	38	71	64	69	74	28	353	48	304	316	4	342	316	155
13	335	298	309	39	254	338	161	337	332	3	7	25	29	49	46	40	335	328	353	321	312	18	351	9
14	188	299	339	180	320	232	345	23	10	88	172	32	44	152	150	92	183	275	101	323	312	321	323	11
15	319	225	150	273	248	277	333	360	81	146	174	180	193	187	180	170	174	204	221	235	141	298	268	18
16	360	35	6	18	5	350	323	307	51	27	34	40	64	79	77	70	2	323	65	1	338	317	340	336
17	316	229	353	6	259	325	224	232	147	173	206	216	218	247	313	316	320	245	182	115	256	172	167	150
18	158	155	167	191	212	299	320	168	193	198	198	213	209	204	212	211	219	170	174	167	150	159	161	236
19	199	280	309	325	360	12	6	7	10	80	40	104	41	54	70	63	122	242	48	339	352	2	342	80
20	347	344	14	320	341	261	294	272	182	143	90	193	136	139	159	167	186	218	283	291	170	201	313	359
21	24	23	2	258	186	339	228	219	44	148	186	59	19	39	154	188	183	311	18	16	331	343	299	282
22	342	348	282	350	354	55	305	13	12	34	31	43	60	52	59	53	41	360	326	339	348	337	325	340
23	40	339	315	342	39	46	354	336	21	33	32	44	65	73	65	71	310	339	337	329	21	345	1	325
24	307	275	308	334	345	299	346	112	30	141	89	49	68	65	75	73	91	281	358	334	12	347	154	356
25	313	297	307	351	111	348	344	4	11	12	28	58	61	55	62	53	279	327	348	6	12	354	348	350
26	297	291	231	348	309	51	350	211	8	150	211	30	31	57	51	49	217	122	253	11	318	204	340	339
27	342	230	352	283	314	13	42	245	65	192	171	173	193	193	193	220	218	223	228	192	191	204	216	242
28	235	271	324	280	286	305	298	293	201	305	303	314	308	308	317	318	314	312	311	311	313	309	318	353
29	353	58	57	59	350	324	317	315	322	327	328	12	22	38	46	48	358	259	301	249	6	338	42	12
30	327	9	26	28	24	280	325	204	47	200	105	191	112	47	42	158	183	238	256	264	339	335	313	309
31	336	31	282	355	345	297	265	264	110	197	187	165	160	173	180	178	162	235	195	94	31	303	26	348

* Indicates calibration of sensors
** Indicates invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 1/16/90

HOURLY AVERAGED TEMPERATURE
DECEMBER 1989
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
UNITS ARE TENTHS OF A DEGREE CELSIUS

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG
1	10	3	-2	-25	-22	-23	-37	13	78	113	120	147	159	166	169	167	143	82	61	72	47	31	12	16	63
2	20	42	33	23	0	6	12	68	110	139	151	161	170	178	181	170	156	75	67	43	60	61	62	34	85
3	33	38	31	42	35	32	53	95	101	126	146	162	170	177	179	174	140	72	59	70	61	44	19	8	86
4	19	15	5	0	-7	-5	-28	19	93	128	154	175	189	196	197	192	156	97	73	76	55	86	101	51	85
5	26	33	56	36	29	35	16	51	117	149	163	185	200	216	206	185	165	151	134	133	133	123	117	118	116
6	125	123	117	107	102	100	106	97	114	134	160	174	181	187	192	188	160	100	85	63	75	51	46	14	117
7	29	37	33	38	22	17	9	37	86	132	159	163	178	188	193	190	161	114	74	52	72	49	35	27	87
8	19	12	22	11	9	-1	3	15	80	133	147	161	180	188	189	183	152	98	76	64	41	38	29	38	79
9	40	35	27	20	37	38	25	40	106	154	180	211	223	227	221	202	174	149	125	122	117	124	116	120	118
10	141	125	119	112	105	99	110	116	144	144	150	157	165	170	170	163	137	93	76	79	48	25	20	3	111
11	6	-1	20	29	23	4	32	28	38	61	75	84	92	96	94	90	76	65	35	1	-14	-22	-10	-14	37
12	-14	-39	-34	-40	-61	-53	-68	-51	34	61	64	81	92	102	105	104	89	10	-19	-30	-32	-15	-18	-31	10
13	-37	-53	-57	-47	-29	-9	-17	-17	29	58	67	89	107	119	116	111	82	57	47	27	12	2	19	6	28
14	-5	-7	-30	-17	-25	-30	-38	-3	62	98	117	130	140	156	159	159	132	46	25	11	22	3	4	6	46
15	0	-3	10	15	14	1	-3	6	53	89	111	116	123	139	143	140	123	89	77	61	68	114	79	73	69
16	57	33	27	29	10	-6	-13	-0	75	114	132	140	157	161	163	159	140	63	41	39	27	20	20	22	67
17	13	0	-21	-6	-22	-23	-10	-3	82	123	143	165	179	188	180	166	142	120	87	82	93	75	67	56	78
18	34	39	49	38	10	-1	9	0	76	96	121	135	146	147	139	126	98	66	47	39	40	13	15	-3	62
19	-18	-23	-28	-41	-35	-33	-25	1	34	69	89	108	118	130	134	131	113	56	24	18	22	38	20	-2	38
20	-10	-23	-13	1	-19	-44	-46	-29	50	104	116	127	135	145	149	140	118	69	40	18	32	30	24	13	47
21	48	65	35	0	-6	-15	-29	2	60	111	123	134	147	156	156	150	120	64	44	42	43	43	42	9	64
22	-3	14	-10	-15	-8	-12	-10	3	84	121	130	145	154	159	164	162	141	93	61	60	49	48	48	24	67
23	14	-1	-3	2	-8	-9	0	13	82	117	136	155	167	175	174	170	150	96	82	51	48	50	47	37	73
24	34	32	25	25	25	12	16	19	90	128	154	166	183	185	185	180	165	108	83	65	45	37	37	51	85
25	34	18	9	15	12	1	16	54	93	120	144	160	167	169	168	161	138	91	81	78	74	77	81	68	85
26	55	64	55	58	45	35	27	26	60	131	150	162	172	183	181	179	142	113	84	67	70	73	78	79	96
27	70	66	57	45	36	20	17	19	90	117	139	168	183	195	199	172	156	129	100	93	90	83	72	73	100
28	61	61	47	40	37	44	45	53	69	80	95	97	95	97	87	70	65	56	54	51	50	47	46	44	62
29	32	19	26	17	22	27	34	41	52	88	109	127	138	146	142	137	110	69	56	51	90	68	82	57	73
30	13	19	25	33	47	-2	-25	-14	65	108	126	135	148	151	154	159	142	79	49	40	26	31	20	8	64
31	8	14	1	-9	3	-8	-7	14	88	121	137	146	160	171	175	169	151	111	108	118	115	106	96	93	86
AVERAGE	28	24	20	17	13	6	6	23	78	112	130	144	155	163	163	157	134	86	66	57	54	50	46	35	74

* Indicates calibration of sensors
** Indica   invalid data

AIR SCIENCES INC.
SAROAD(V6.0) 1/16/90

APPENDIX C

Frequency Distribution by
Direction and Speed

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'A'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989

Speed Class Intervals(kts)

Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	2.3	0.8	0.0	0.0	0.0	0.0	3.0	2.6
NNE	2.3	3.0	0.8	0.0	0.0	0.0	6.0	3.6
NE	3.0	10.5	2.3	0.0	0.0	0.0	15.8	4.6
ENE	1.1	6.0	6.0	0.0	0.0	0.0	13.2	5.6
E	2.6	4.9	0.8	0.0	0.0	0.0	8.3	4.0
ESE	2.3	3.8	0.0	0.0	0.0	0.0	6.0	3.3
SE	4.1	2.6	0.0	0.0	0.0	0.0	6.8	2.9
SSE	3.0	6.8	0.4	0.0	0.0	0.0	10.2	3.3
S	2.3	6.0	1.1	0.0	0.0	0.0	9.4	4.0
SSW	2.6	2.6	2.6	0.0	0.0	0.0	7.9	4.7
SW	0.8	1.5	1.1	0.0	0.0	0.0	3.4	4.6
WSW	0.0	0.0	0.8	0.0	0.0	0.0	0.8	8.7
W	0.8	0.0	0.8	0.4	0.0	0.0	1.9	6.4
WNW	0.4	0.0	0.4	0.4	0.0	0.0	1.1	7.4
NW	1.9	0.4	1.1	0.8	0.0	0.0	4.1	5.5
NNW	1.1	0.8	0.4	0.0	0.0	0.0	2.3	3.4
All	30.5	49.6	18.4	1.5	0.0	0.0	100.0	4.3

Calm (less than one knot) = 0.0%
Period mean wind speed = 4.3 knots
Percent occurrance for 'A' stability class(es) 12.0%

AIR SCIENCES INC.
SBWIND(1.2) 1/10/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'C'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989

Speed Class Intervals(kts)

Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	0.0	2.9	0.7	0.0	0.0	0.0	3.7	5.0
NNE	0.0	7.4	4.4	0.7	0.0	0.0	12.5	5.9
NE	0.7	2.2	15.4	1.5	0.0	0.0	19.9	7.3
ENE	0.0	0.7	32.4	6.6	0.0	0.0	39.7	8.2
E	0.0	0.7	1.5	0.0	0.0	0.0	2.2	6.3
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.7	0.0	0.0	0.0	0.0	0.0	0.7	1.9
SSE	0.7	0.7	0.0	0.0	0.0	0.0	1.5	4.2
S	0.0	3.7	3.7	0.0	0.0	0.0	7.4	5.9
SSW	0.0	2.9	2.9	2.2	0.0	0.0	8.1	7.8
SW	0.0	0.0	0.7	0.0	0.0	0.0	0.7	9.5
WSW	0.7	0.0	0.0	0.0	0.0	0.0	0.7	2.1
W	0.0	0.0	0.7	0.0	0.0	0.0	0.7	8.6
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.7	0.0	1.5	0.0	0.0	0.0	2.2	6.7
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All	3.7	21.3	64.0	11.0	0.0	0.0	100.0	7.2

Calm (less than one knot) = 0.0%
Period mean wind speed = 7.2 knots
Percent occurrance for 'C' stability class(es) 6.2%

AIR SCIENCES INC.
SBWIND(1.2) 1/10/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'D'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989

Speed Class Intervals(kts)

Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	0.1	3.7	2.7	0.4	0.0	0.0	6.9	6.3
NNE	0.0	2.3	5.1	0.1	0.0	0.1	7.7	7.1
NE	0.0	1.2	4.8	0.9	0.3	0.1	7.3	8.4
ENE	0.0	1.0	1.7	3.1	0.0	0.0	5.9	9.9
E	0.0	0.0	0.4	0.8	0.0	0.0	1.2	10.7
ESE	0.0	0.0	0.1	0.0	0.0	0.0	0.1	6.2
SE	0.0	0.1	0.0	0.0	0.0	0.0	0.1	5.4
SSE	0.0	0.8	0.0	0.0	0.0	0.0	0.8	4.0
S	0.0	0.8	1.0	0.0	0.0	0.0	1.8	6.7
SSW	0.1	0.1	2.6	3.7	1.6	0.3	8.4	12.3
SW	0.0	0.4	2.3	3.3	1.2	0.0	7.2	12.2
WSW	0.0	0.1	1.0	0.1	0.0	0.0	1.3	7.7
W	0.0	0.1	2.0	0.7	0.0	0.0	2.7	8.6
WNW	0.0	0.4	1.8	4.6	1.8	0.7	9.3	13.2
NW	0.5	0.4	2.5	11.5	11.4	4.8	31.1	16.3
NNW	0.1	1.8	3.0	2.1	0.9	0.3	8.2	10.0
All	0.9	13.3	31.2	31.2	17.1	6.3	100.0	11.8

Calm (less than one knot) = 0.0%
Period mean wind speed = 11.8 knots
Percent occurrance for 'D' stability class(es) 34.7%

AIR SCIENCES INC.
SBWIND(1.2) 1/10/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'E'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989

Speed Class Intervals(kts)

Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	2.9	7.7	27.4	0.0	0.0	0.0	38.0	6.3
NNE	1.9	3.4	5.8	0.0	0.0	0.0	11.1	5.7
NE	0.5	2.9	0.5	0.0	0.0	0.0	3.8	4.2
ENE	0.0	1.0	0.0	0.0	0.0	0.0	1.0	5.0
E	0.0	1.0	0.0	0.0	0.0	0.0	1.0	5.8
ESE	0.0	0.0	0.5	0.0	0.0	0.0	0.5	6.4
SE	0.5	0.5	0.0	0.0	0.0	0.0	1.0	2.8
SSE	0.0	1.9	0.0	0.0	0.0	0.0	1.9	4.4
S	1.0	5.3	0.5	0.0	0.0	0.0	6.7	4.2
SSW	0.0	1.4	1.4	0.0	0.0	0.0	2.9	5.2
SW	0.0	0.0	0.5	0.0	0.0	0.0	0.5	6.2
WSW	0.5	1.0	2.4	0.0	0.0	0.0	3.8	6.0
W	0.5	2.4	0.5	0.0	0.0	0.0	3.4	4.2
WNW	1.9	1.0	2.4	0.0	0.0	0.0	5.3	4.7
NW	2.4	1.9	0.0	0.0	0.0	0.0	4.3	3.5
NNW	1.4	5.8	7.7	0.0	0.0	0.0	14.9	5.4
All	13.5	37.0	49.5	0.0	0.0	0.0	100.0	5.5

Calm (less than one knot) = 0.0%
Period mean wind speed = 5.5 knots
Percent occurrance for 'E' stability class(es) 9.4%

AIR SCIENCES INC.
SBWIND(1.2) 1/10/90

FREQUENCY OF WINDS BY DIRECTION AND SPEED
FOR STABILITY CLASS 'F'
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER - DECEMBER 1989

Speed Class Intervals(kts)

Direction	1,<3	3,<6	6,<10	10,<16	16,<21	>21	All	Mean Speed
N	8.3	4.6	0.0	0.0	0.0	0.0	12.9	2.8
NNE	5.4	4.5	0.0	0.0	0.0	0.0	9.9	2.9
NE	4.6	1.4	0.0	0.0	0.0	0.0	6.0	2.6
ENE	2.6	1.1	0.0	0.0	0.0	0.0	3.8	2.6
E	2.1	0.1	0.0	0.0	0.0	0.0	2.2	2.1
ESE	1.9	0.4	0.0	0.0	0.0	0.0	2.4	2.3
SE	1.4	0.7	0.0	0.0	0.0	0.0	2.1	2.8
SSE	2.2	2.2	0.0	0.0	0.0	0.0	4.5	3.0
S	2.4	1.9	0.0	0.0	0.0	0.0	4.3	3.0
SSW	2.2	1.7	0.0	0.0	0.0	0.0	3.9	2.9
SW	2.1	2.2	0.0	0.0	0.0	0.0	4.3	2.8
WSW	2.1	1.9	0.0	0.0	0.0	0.0	4.0	2.8
W	3.9	1.5	0.0	0.0	0.0	0.0	5.4	2.7
WNW	4.9	2.4	0.0	0.0	0.0	0.0	7.2	2.7
NW	8.2	3.6	0.0	0.0	0.0	0.0	11.8	2.7
NNW	8.9	5.6	0.0	0.0	0.0	0.0	14.5	2.8
All	63.3	35.9	0.0	0.0	0.0	0.0	99.2	2.8

Calm (less than one knot) = 0.8%
Period mean wind speed = 2.7 knots
Percent occurrance for 'F' stability class(es) 32.6%

AIR SCIENCES INC.
SBWIND(1.2) 1/10/90

APPENDIX D

Wind Speed Frequency Distributions

AVERAGE FREQUENCY DISTRIBUTION OF WIND SPEEDS
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
OCTOBER 1989
(%)

Day	< 10	>=10, < 13	>=13, < 16	>=16, < 19	>=19, < 22	>=22, < 25	>=25, < 28	>=28, < 31	>=31	Max Gust (mph)	Time Period
	Wind Speed Intervals (mph)										
1	71.1	10.7	11.4	6.0	0.9	0.0	0.0	0.0	0.0	22.3	1
2	33.1	10.7	7.9	12.3	14.6	12.5	6.9	1.9	0.2	32.7	2
3	48.6	16.3	12.5	10.6	7.7	3.6	0.7	0.1	0.0	29.1	3
4	82.8	14.2	2.8	0.2	0.0	0.0	0.0	0.0	0.0	17.8	2
5	90.2	9.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	15.1	3
6	55.9	16.4	17.1	8.6	1.9	0.1	0.0	0.0	0.0	23.9	3
7	61.5	19.2	12.5	5.8	0.9	0.1	0.0	0.0	0.0	23.2	2
8	81.7	10.3	5.5	2.3	0.2	0.0	0.0	0.0	0.0	20.9	3
9	97.3	2.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	14.2	2
10	71.1	10.3	11.8	5.8	1.0	0.0	0.0	0.0	0.0	22.3	3
11	83.6	11.8	4.1	0.5	0.0	0.0	0.0	0.0	0.0	22.3	3
12	84.5	10.6	4.4	0.5	0.0	0.0	0.0	0.0	0.0	20.0	2
13	85.8	9.2	4.4	0.5	0.0	0.0	0.0	0.0	0.0	18.7	2
14	34.0	6.9	6.0	6.9	9.5	11.2	10.3	8.2	7.0	47.0	3
15	10.7	3.4	5.7	9.3	13.9	18.0	17.5	12.7	8.8	41.1	1
16	97.7	1.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	18.9	2
17	66.0	25.6	6.9	1.5	0.0	0.0	0.0	0.0	0.0	20.0	2
18	90.0	9.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	15.1	2
19	91.7	6.8	1.4	0.1	0.0	0.0	0.0	0.0	0.0	17.6	2
20	46.0	10.6	11.6	11.3	9.5	6.5	3.0	1.4	0.2	34.1	2
21	29.8	20.7	16.1	16.0	11.7	5.1	0.5	0.0	0.0	28.7	2
22	98.7	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	14.4	3
23	50.1	14.7	12.7	14.1	6.8	1.5	0.1	0.0	0.0	27.3	2
24	66.4	9.2	9.3	8.3	4.4	1.8	0.6	0.1	0.0	28.9	2
25	9.2	8.3	12.3	15.5	17.6	13.1	8.4	6.9	8.6	50.6	3
26	65.6	8.6	8.8	8.5	5.4	2.7	0.5	0.0	0.0	28.6	1
27	11.0	7.0	13.8	17.8	14.6	12.1	8.7	7.7	7.2	42.5	3
28	69.1	17.2	5.0	1.3	1.1	1.6	1.7	1.6	1.5	40.7	1
29	35.8	29.7	21.3	10.0	2.8	0.5	0.1	0.0	0.0	26.0	2
30	91.0	7.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	16.0	2
31	98.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	2
All*	64.8	11.0	7.4	5.6	4.0	2.9	1.9	1.3	1.1	50.6	3

* All data on this line are monthly averages of the daily values except for maximum gust and time period which are the maximum gust recorded during the month and the time period of that gust.

AVERAGE FREQUENCY DISTRIBUTION OF WIND SPEEDS
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
NOVEMBER 1989
(%)

Day	< 10	>=10, < 13	>=13, < 16	>=16, < 19	>=19, < 22	>=22, < 25	>=25, < 28	>=28, < 31	>=31	Max Gust (mph)	Time Period
	Wind Speed Intervals (mph)										
1	82.2	12.8	4.5	0.5	0.0	0.0	0.0	0.0	0.0	18.4	2
2	96.0	3.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	13.9	2
3	99.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	2
4	82.2	6.8	5.3	4.1	1.4	0.2	0.0	0.0	0.0	24.8	3
5	68.7	10.2	5.3	5.9	5.0	3.6	1.0	0.3	0.0	32.3	2
6	32.8	9.6	7.6	14.2	16.5	11.3	4.5	1.8	1.8	40.9	3
7	19.3	6.8	13.4	21.6	21.6	13.1	3.6	0.7	0.0	33.7	1
8	84.3	13.8	1.7	0.2	0.0	0.0	0.0	0.0	0.0	18.0	2
9	96.3	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.8	2
10	99.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	2
11	99.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	2
12	74.0	6.5	7.3	7.8	3.8	0.6	0.0	0.0	0.0	26.0	3
13	9.3	13.5	17.9	23.9	21.3	11.2	2.7	0.2	0.0	30.2	1
14	68.4	9.1	7.1	7.1	4.7	2.5	0.8	0.2	0.0	31.1	1
15	93.3	6.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	15.8	2
16	97.5	2.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	15.7	2
17	92.0	7.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	16.6	3
18	78.2	17.0	4.1	0.6	0.0	0.0	0.0	0.0	0.0	20.0	2
19	92.7	7.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	14.2	2
20	99.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	3
21	27.4	9.7	11.9	15.0	16.6	13.1	5.1	1.2	0.1	32.3	3
22	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	3
23	67.6	7.9	9.9	8.1	3.9	1.8	0.6	0.1	0.0	30.7	2
24	44.9	9.4	11.2	13.0	10.8	6.9	2.7	1.0	0.2	33.2	2
25	24.0	14.8	24.1	22.1	9.6	3.9	1.3	0.3	0.0	33.6	2
26	10.1	9.9	16.0	19.8	17.0	12.8	7.6	4.1	2.7	39.8	3
27	62.6	13.7	11.9	7.6	3.3	0.8	0.2	0.0	0.0	27.7	2
28	65.7	15.5	12.8	5.1	0.9	0.0	0.0	0.0	0.0	23.5	2
29	76.0	22.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	17.3	2
30	98.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	2
All*	71.4	8.2	5.6	5.9	4.5	2.7	1.0	0.3	0.2	40.9	3

* All data on this line are monthly averages of the daily values except for maximum gust and time period which are the maximum gust recorded during the month and the time period of that gust.

AVERAGE FREQUENCY DISTRIBUTION OF WIND SPEEDS
SOLEDAD MOUNTAIN PROJECT - MOJAVE, CALIFORNIA
DECEMBER 1989
(%)

Day	< 10	>=10, < 13	>=13, < 16	>=16, < 19	>=19, < 22	>=22, < 25	>=25, < 28	>=28, < 31	>=31	Max Gust (mph)	Time Period
	Wind Speed Intervals (mph)										
1	97.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	2
2	97.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	2
3	75.3	22.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5	1
4	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	2
5	55.1	2.9	4.1	5.8	6.1	4.1	3.2	4.1	14.6	48.9	3
6	77.3	5.4	2.8	2.7	2.1	2.2	2.3	2.1	3.0	45.5	1
7	98.1	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	2
8	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	2
9	78.7	7.9	6.7	4.6	1.8	0.2	0.0	0.0	0.0	28.0	3
10	64.0	18.7	8.1	5.8	2.4	0.8	0.2	0.0	0.0	28.7	2
11	54.8	17.1	12.3	9.9	4.6	1.1	0.2	0.0	0.0	27.7	2
12	98.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2	2
13	99.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	2
14	99.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8	2
15	99.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	3
16	98.0	1.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	13.7	1
17	79.7	7.3	5.8	4.4	2.2	0.5	0.0	0.0	0.0	26.4	2
18	81.5	11.0	5.8	1.7	0.0	0.0	0.0	0.0	0.0	20.0	2
19	99.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	2
20	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	2
21	99.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2	2
22	96.3	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.8	2
23	98.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	2
24	98.9	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	14.6	2
25	97.1	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	2
26	99.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	2
27	74.2	17.4	6.1	1.8	0.5	0.0	0.0	0.0	0.0	21.9	2
28	26.4	15.1	10.7	12.2	15.3	12.3	5.4	2.2	0.4	34.8	2
29	55.3	13.5	9.1	5.4	4.5	3.9	3.4	2.7	2.3	41.8	2
30	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	2
31	99.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.1	3
All*	87.1	5.2	2.4	1.8	1.3	0.8	1.0	0.3	0.2	48.9	3

* All data on this line are monthly averages of the daily values except for maximum gust and time period which are the maximum gust recorded during the month and the time period of that gust.

SAMPLING PROTOCOL
AIR MONITORING PROGRAM
GOLDEN QUEEN MINE PROJECT

Prepared for
Envirocon, Inc.
Missoula, MT

Prepared by
Air Sciences Inc.
Lakewood, CO

Project 58-07
October 1989

Table of Contents

List of Figures

1.0 INTRODUCTION

Dispersion meteorological data are to be collected at the Golden Queen Mine Project site for Golden Queen Mining Company (GQMC). The purpose of the monitoring is primarily to define dispersion meteorology and secondarily to measure climatological values for the site.

This document presents information on the site selection for the meteorological monitoring station, equipment specifications, calibration and quality control procedures, record keeping and reporting procedures. All figures are located at the end of this report.

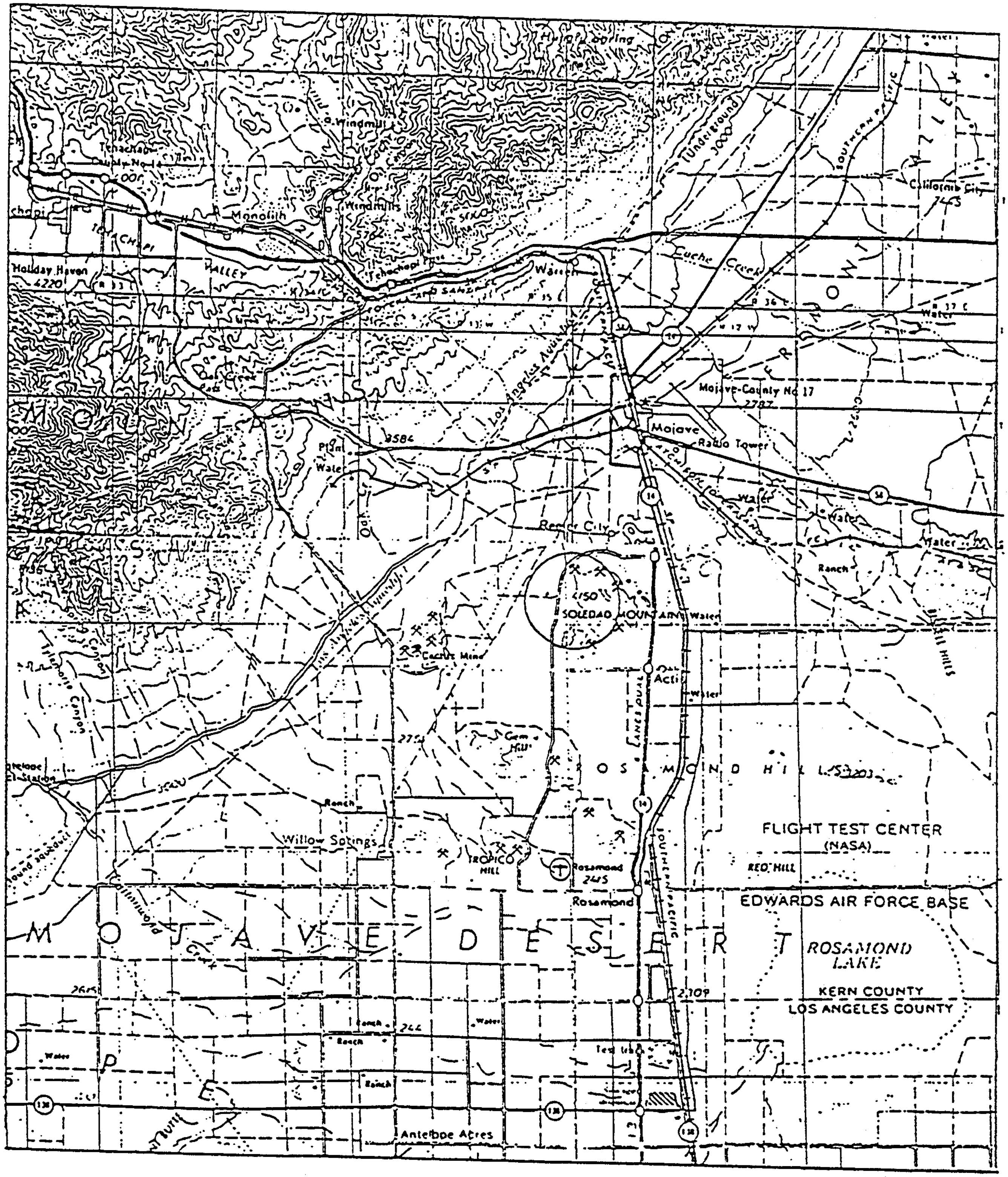
The parameters to be monitored are wind speed, wind direction, direction deviation (sigma theta) and temperature. There will be a 30-foot meteorological tower installed and operated near the project area. The parameters of wind speed, wind direction and direction deviation will be measured at 30 feet, and temperature will be measured at the two-meter level. All meteorological data will be recorded by a digital data acquisition system (DAS) equipped with a solid-state storage device for data recording.

Air Sciences will design and install the monitoring system. Site personnel trained by Air Sciences will be responsible for the routine changing of data recording modules and checks of the condition of the monitoring equipment. The meteorological data will be reported to GQMC on a quarterly schedule. The meteorological equipment will be calibrated on a semiannual schedule.

2.0 SITING OF THE MONITORING STATION

The Golden Queen Mine monitoring station will be located on the plains just west of Solidad Mountain in the Mojave Desert of Kern County, California. The site is approximately 12 miles northwest of Rosamond Lake and five miles south-southwest of the town of Mojave. The mine pit will be located on Solidad Mountain. Proposed heap leach pads or tailings piles and mill facilities are expected to be located west of the Mojave-Tropico Road. There are several locations where particulates will be emitted from the slopes of Solidad Mountain, from the pit which will be near the mountain top, down to the plain and the winds will be different at different elevations on the mountain. The station will be located on the plain and will define the wind patterns that will carry any pollutants toward residential areas. The station will be at an approximate elevation of 2,845' MSL about one quarter mile west of Mojave-Tropico Road and at UTM coordinates 3,871.5 km north and 389.2 km east (the southwest quarter of Section 1, T 10 N, R 13 W). Vegetation is sparse in this part of the Mojave Desert Basin and consists of sagebrush and widely scattered Joshua trees. The monitoring location is shown on Figure 1.

FIGURE 1
GENERAL PROJECT LOCATION



5 0 5 10 15 20 Statute Miles

5 0 5 10 15 20 25 30 Kilometers

5 0 5 10 15 Nautical Miles

CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

TRANSVERSE MERCATOR PROJECTION

3.0 SYSTEM DESIGN AND SPECIFICATIONS

This section describes the meteorological instrumentation that will be used for the Golden Queen monitoring program. The meteorological instrumentation has been selected to be compatible with the EPA standard reference methods and will provide high quality, reliable data.

3.1 Solar Power Supply System

Power to the meteorological instrumentation will be supplied by a Solarex Model MSX-10 solar power cell mounted on the meteorological tower. This system includes the solar power cell, a 6.5 amp-hour sealed gell-cell battery for power storage and a Bobier Model B-1 charging regulator. The system will provide, on a 24-hour basis, uninterrupted 12 Volt (nominal) output at 10 watts of power suitable for the current needs of the meteorolgical sensors and digital data acquisition system.

3.2 Data Acquisition System

The Campbell Scientific, Inc. Model 21X data logger will be used as the data acquisition system (DAS) on this project. The Model 21X will sample the analog data every 10 seconds, compute 15 minute averages of sine and cosine of wind direction, scalar wind speed and temperature and store the averages in its own internal memory. The following parameters are to be recorded by the logger every 15 minutes:

Parameter	Units
Output Table Flag	-
Julian Day	days
Time (PST)	hours:minutes
Scalar Wind Speed	mph
Temperature	deg C
Sine of Wind Direction	-
Cosine of Wind Direction	-

The data logger will also calculate the average battery voltage, wind speed distribution and maximum instantaneous (10 second) wind speed value over each 8-hour period of the day. The following parameters are recorded by the logger every 8-hours:

Parameter	Units
Output Table Flag	-
Julian Day	Days
Time (PST)	Hours:Minutes
Average Battery Voltage	VDC
Wind Speed Histogram (1 mph - < 10 mph)	%
Wind Speed Histogram (> = 10 mph - < 13 mph)	%
Wind Speed Histogram (> = 13 mph - < 16 mph)	%
Wind Speed Histogram (> = 16 mph - < 19 mph)	%
Wind Speed Histogram (> = 19 mph - < 22 mph)	%
Wind Speed Histogram (> = 22 mph - < 25 mph)	%
Wind Speed Histogram (> = 25 mph - < 28 mph)	%
Wind Speed Histogram (> = 28 mph - < 31 mph)	%
Wind Speed Histogram (> = 31 mph)	%
Maximum (instantaneous) Wind Speed	MPH

A solid-state storage device will be interfaced to the logger. The data values will be written to the logger's internal memory and to the external device. The external storage device will be changed on a three-week schedule to allow for data transfer and processing. The logger has the capability to store approximately four weeks of data in its internal memory before data write-over occurs.

3.3 Wind Speed

Wind speed will be measured continuously using a MetOne, Inc. Model 014 sensor interfaced directly to the DAS. The Model 014 is a three-cup anemometer which generates a square-wave frequency proportional to the wind speed by the use of a magnetic-read switch. Power for the sensor is supplied by the DAS. Starting threshold for the 014 sensor is less than 1.0 mph. The Model 014 has an accuracy of +/- 1.5 percent or 0.15 m/s, whichever is greater.

3.4 Wind Direction

Wind direction will be measured continuously using a MetOne, Inc Model 024 sensor interfaced directly to the DAS. The 024 sensor provides a 0-360 degree format through the use of a precision potentiometer powered by the DAS. The potentiometer outputs a varying voltage proportional to the wind direction. The sensor has an accuracy of +/- 5 degrees with a distance constant of less than three meters. Sensor alignment is to true north with a magnetic declination of 15.5 degrees east. The damping ratio of the sensor is 0.25. As with the 014 sensor, the starting threshold of the 024 sensor is less than 1.0 mph. The wind direction is recorded in an intermediate form as average sine and cosine of wind direction on a 15 minute basis.

3.5 Sigma Theta

The variation in the wind direction, or sigma theta, will be calculated on Air Sciences' engineering computer using the four 15-minute average sine and cosine values of wind direction. The instantaneous (10-second) wind direction sensor values in degrees are converted to sine and cosine values and averaged every 15 minutes by the DAS. These scalar values are later used to calculate sigma theta based on the Yamartino algorithm as recommended in the EPA-450/4-87-013 Meteorological Monitoring Guidelines, (equation 6.1.7). The Yamartino approximation is more precise at high deviation angles than the previously widely employed single pass small-angle approximation.

3.6 Temperature

The Model 107 temperature probe will be exposed at a height of 2 meters above ground level. The probe, a linear thermistor system, will be housed inside an aspirated radiation shield to protect the sensor from the influence of direct sunlight. Temperature is measured by the DAS as a varying resistance proportional to the ambient temperature. Accuracy of the temperature sensor is +/- 0.2 degree with a linearization error of less than 0.1 °C over the temperature range of -33 to +48 °C.

3.7 Meteorological Tower

A Rohn 25G 30 foot Zone C meteorological tower will be installed at the monitoring location. The tower will be instrumented at the 10 meter level with the wind speed and direction sensors. The temperature sensor will be installed in a passive aspirated shield at the two-meter level. The tower will be grounded and lightning protection will be installed on all signal lines.

4.0 INSTALLATION, OPERATION, MAINTENANCE AND CALIBRATION

The meteorological monitoring systems will be installed by Air Sciences personnel. These personnel are experienced instrumentation technicians, trained in the operation of all of the monitoring system components. Routine operations such as data module changing will be carried out by a local resident. Calibrations will be performed by Air Sciences technicians.

4.1 Routine Operations and Maintenance

After the installation and initial calibration are complete, Air Sciences personnel will train local site personnel in the routine operation of the monitoring system.

Routine site checks of the meteorological monitoring system will be performed at least once per week. Results of the site check are documented on a standardized form, Figure 2. The person responsible for these duties will be the site technician. He will report directly to the Project Manager. Site check duties consists of the following activities:

- comparing instantaneous estimates of local weather conditions with the instantaneous data acquisition system measured values,
- changing and shipping data storage modules,
- maintaining checklist of operations,
- performing maintenance as specified,
- performing housekeeping of tower and grounds, and
- reporting problems to the Project Manager.

The site operator responsible for the above duties will be thoroughly trained and supervised prior to operation of the system. The site operator will have access to instrumentation and computer specialists at Air Sciences if their assistance should become necessary.

Every three weeks, the site operator will change the storage device at the meteorological station. The storage device, and all completed site documentation, will be forwarded to Air Sciences in Denver via certified or registered mail. Operational and maintenance activities will be documented on the site check form (see figure 2).

4.2 Calibration Procedures

4.2.1 Wind Speed

Calibrations of the wind speed system will be performed semiannually. Field calibrations consist of inputting known frequencies to the signal conditioning electronics, recording the outputs and comparing these to the calculated targets. The calibrations include an inspection of the cup and cable integrity and an evaluation of the sensor bearings by "experienced touch". Tolerance for the calibration is +/- 1.0 mph. Exceedance of the tolerance will result in identification and repair of the defective component and recalibration until the tolerance is obtained. Calibration data will be recorded on form Figure 3.

4.2.2 Wind Direction

Calibrations of the wind direction system will be performed semiannually. The calibration consists of orienting the sensor vane to a series of compass located targets. The targets, nominally a total of six, are selected to cover the operating range of the system. A Suunto precision magnetic compass, accurate to within one degree is used to survey the targets. The target readings are adjusted for magnetic declination of 15.5 degrees east. Checking the vane at six compass points shows possible discrepancies in orientation and linearity. Tolerance for the wind direction calibrations will be +/- 5 degrees for the calibration points. If this tolerance is not met, the sensor will be reoriented and recalibrated, or the potentiometer replaced. As with the wind speed calibration, the direction calibration will include a visual inspection of the vane, cable and bearings. Calibration data will be recorded on form Figure 4.

4.2.3 Temperature

The ambient temperature probe will be calibrated semiannually in place by comparison with a certified thermometer. The response of the probe is checked at a minimum of three distinct points. Tolerance for the temperature calibration is a +/- 1 °C for all points. Exceedance of this tolerance will result in the reprogramming of the DAS slope and intercept so that the calculated linear regression of reference temperature versus probe temperature shows a correlation coefficient of 0.995 of greater. The calibration will include an inspection of the shield and cable integrity. Calibration data will be recorded on form Figure 5.

4.4 Standards Control Procedures

The thermal and electronic standards used on this project are traceable to NBS standards. The precision mercury in glass thermometer is provided with a certification. The electronic equipment used on the project is annually certified traceable to NBS standards.

4.5 Emergency Repair Procedures

Air Sciences maintains a stock of the most common failure items for the meteorological sensors, storage devices and data loggers. If a system should fail, the site operator may be able to identify the problem and repair the malfunction. If the repair is beyond the capabilities of the site operator, the Project Manager will dispatch the appropriate personnel to the field to make the necessary repairs.

5.0 DATA PROCESSING

Air Sciences will receive the meteorological data storage modules and site check forms every three weeks. These data and records are registered as they are received. A data receipt form or a transmission form, Figures 6 and 7, are filled out for all modules received from or transmitted to the site. Following registration, all received information or data are reviewed by the Project Manager or his assistant to identify any instrumentation problems or data corrections required.

5.1 Meteorological Data

Air Sciences will receive data from the digital data acquisition system every three weeks via certified or registered mail. Each storage device will be logged in with the date received, site and data period recorded on a form, Figure 7. After registration, the digital data will be transferred from the storage device to Air Sciences' engineering computer. The digital data is composed of 15-minute averaged data, 8-hour wind speed histograms and 8-hour maximum gust data. Data modules returned to the site will be logged on a Storage Module and Filter Transmission Form, Figure 6.

Processing of the meteorological data is performed as it is received. The raw data files containing the 15-minute averages recorded by the data logger will be processed into hourly averages. The processing programs employed for this project will calculate the following hourly averages:

Wind Speed	Arithmetic average of the four 15-minute averages of scalar wind speed.
Wind Direction	Unit vector average of the four 15-minute sine and cosine averages.
Sigma Theta	Root mean square average of four 15-minute unit vector average sigma thetas calculated by Yamartino algorithm (EPA-450/4-87-013, eq. 6.1.7) from sine and cosine of wind direction.
Temperature	Arithmetic average of the four 15-minute averages of temperature

The hourly sigma theta data are used to calculate an hourly stability class using the modified sigma theta method (EPA-450/4-87-013, section 6.4.4.3). A surface roughness length of 15 cm will be used.

The hourly average processing programs check for the correct number of 15-minute averages in the hour. Valid hourly averages will be comprised of a minimum of 30 minutes of consecutive valid data. The processing programs will check for wind speeds less than 0.5 or greater than 50 m/s, directions less than one or greater than 360 degrees and temperatures less than -45 °C or greater than 40 °C. Following the hourly averaging, the data are checked for unusual conditions such as extended periods of time (over three hours) with constant values. When the data quality assurance checking is complete, the data are ready to be summarized in data reports.

The raw data files containing the 8-hour wind speed histograms tabulated from instantaneous (10-second) data logger interrogations and the maximum wind gust in each 8-hour period from instantaneous data logger values will be separated from the raw 15-minute averaged data and stored in different files on Air Sciences' engineering computer.

The meteorological data files are written to magnetic tape on a twice weekly schedule to provide a back up file in the event of a computer hardware problem.

5.2 Battery Voltage Data

Every three weeks, the data storage modules are received by Air Sciences. Along with the meteorologic data contained on the storage module is an 8-hour average battery voltage. This voltage is the average voltage (Vdc) of the storage cell connected to the solar power system. This data is examined to determine existing or possible future problems with the power system which may affect the quality of the meteorologic data collected by the Data Acquisition System.

6.0 DATA REPORTING

Air Sciences will submit quarterly summary data reports to GQMC at the conclusion of each quarter of the monitoring program. This report will contain:

- all valid meteorological data collected during period in a standard SAROAD format,
- joint frequency distributions of wind speed and direction by stability class for the period,
- tabulation by 8-hour periods, the high wind frequency distribution and maximum gust,
- a calculation of the percentage of valid data collected, with an explanation of any instrument malfunction for each parameter, and
- a copy of any calibrations performed during the period.

Figure 2

GOLDEN QUEEN MINE PROJECT

PROJECT NO. 58-07

SITE CHECK FORM

Date:________________ Time:________________ Operator:________________

Yes No **

1. The tower is intact and upright. Guy wires secure.
2. The anemometer cups and wind direction vane are turning freely.
3. The sensor crossarm is oriented properly.
4. The temperature shield is intact.
5. The data logger is reading the correct time and day.
6. The storage module is connected to the 21X Serial I/O port.
7. Each day, estimate the wind speed, wind direction and temperature. Document these readings below.
8. Record the corresponding logger readings below (*6 Mode) and include battery voltage reading.
9. The solar panel appears to be clean.
10. The meteorological system storage module has been changed according to the schedule (every third week).
11. Site check forms and storage modules have been sent to Air Sciences in Denver via certified mail.

Parameter	Estimated	Logger	Audit
Speed (mph)			
Direction *(deg)			
Temperature (°F/°C)			
Battery Voltage (V)			
Time (MST)			
Date			

*Direction wind is from

Audit Date ________________

Audit Initials ________________

Comments/Unusual Occurences or Weather:________________

Signature:________________

Figure 3
WIND SPEED CALIBRATION
CAMPBELL SCIENTIFIC 21X LOGGER

Sensor Model No : ____________________ Client : ____________________
Sensor Serial No : ____________________ Job No : ____________________
Sensor Height : ____________________ Site : ____________________
Logger Ser. No. : ____________________ Date : ____________________
Name : ____________________ Time : ____________________

I. SYSTEM INSPECTION

	PASS	FAIL
Bearings		
Cable		
Cups		

II. SYSTEM LINEARITY CHECK

Input Frequency (Hz)	Target ( )	21X Reading (.)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Target (mph) = (Hz × 1.789) + 1.0
Target (m/s) = (Hz × 0.798) + 0.447

Comments: ____________________

Signature ____________________

Figure 4
WIND DIRECTION CALIBRATION
CAMPBELL SCIENTIFIC 21X LOGGER

Sensor Model No : ______________________ Client : ______________________

Sensor Serial No : ______________________ Job No. : ______________________

Sensor Height : ______________________ Site : ______________________

Logger Ser. No. : ______________________ Date : ______________________

Time : ______________________ Name : ______________________

I. SYSTEM INSPECTION

	PASS	FAIL
Bearings		
Cable		
Vane		

II. SYSTEM LINEARITY CHECK

	Orientation	Compass (degrees)	Declination* (degrees)	True Direction (degrees)	21X Reading (degrees)
1.	Vane				
	Tail				
2.	Vane				
	Tail				
3.	Vane				
	Tail				
4.	Vane				
	Tail				
5.	Vane				
	Tail				
6.	Vane				
	Tail				

* If site has an east declination, add declination to compass reading.
If site has a west declination, subtract declination from compass reading.

Comments: ____

____

Signature ______________________

Figure 5
TEMPERATURE CALIBRATION
CAMPBELL SCIENTIFIC 21X LOGGER

Sensor Model No : ____________________ Client : ____________________
Sensor Serial No : ____________________ Job No : ____________________
Sensor Height : ____________________ Site : ____________________
Logger Ser. No. : ____________________ Date : ____________________
Name : ____________________ Time : ____________________

I. SYSTEM INSPECTION

	PASS	FAIL
Radiation Shield		
Cable		

II. SYSTEM LINEARITY CHECK

	Measured	Corrected	21X Reading (degrees)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
Average			

Comments: ____

____

____

____

Signature ____________________

Figure 6
GOLDEN QUEEN MINE PROJECT
STORAGE MODULE TRANSMISSION FORM

JOB NO: ____________________

CLIENT : ____________________ PAGE ______ OF ______

Item	Via	Sent Date	By

Figu 7
GOLDEN QUEEN MINE PROJECT
STORAGE MODULE RECEIPT FORM

JOB NO. : ____________________ SITE : ____________________

CLIENT : ____________________ PAGE : __________ OF __________

Received		Processed		Data Period		File Name	Comments
Date	By	Date	By	From	To		

Appendix VII

GOLDEN QUEEN MINING COMPANY

SOLEDAD MOUNTAIN PROJECT

ESTIMATED PM_{10} AND

AIR TOXICS EMISSIONS

AND IMPACTS ASSESSMENT

December 1996
Revised: February 1997

Prepared for:
Golden Queen Mining Company
Post Office Box 878
Rosamond, California 93560-0878

Prepared by:
WZI Inc.
4700 Stockdale Highway, Suite 120
Bakersfield, California 93309

07330010.235

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TABLES

EXHIBITS

APPENDICES

TABLE OF ABBREVIATIONS

AAQS	Ambient Air Quality Standard
ADA	Applicable Degree of Accuracy
AEL	Acceptable Exposure Level
BLM	Bureau of Land Management
BTEIR	Biennial Toxic Emission Inventory Report
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CUP	Conditional Use Permit
EIR/EIS	Environmental Impact Report/Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
HRA	Health Risk Assessment
KCAPCD	Kern County Air Pollution Control District
MECR	Maximum Excess Cancer Risk
NEPA	National Environmental Policy Act
OEHHA	California State Office of Environmental Health Hazard Assessment
PAH	Polycyclic Aromatic Hydrocarbon
PM_{10}	Particulate Matter Less than 10 Microns
POM	Polycyclic Organic Matter
PSD	Prevention of Significant Deterioration
SMARA	Surface Mining and Reclamation Act
URF	Unit Risk Factor
UTM	Universal Transverse Mercator

EXECUTIVE SUMMARY

Golden Queen Mining Company (Golden Queen) proposes to install an open pit mine and heap leach gold processing operation on Soledad Mountain, in the Southeast Desert portion of Kern County, near the town of Mojave (Exhibit 1). This mining and processing facility's principal products will be gold and silver. This document presents an estimation of air toxics emissions, an analysis of ambient air quality impacts, a visibility analysis for neighboring Class I areas, and an analysis of the associated health-related impacts of the proposed project. Golden Queen will apply for a Conditional Use Permit (CUP) with Kern County to allow a Surface Mining and Reclamation Plan in accordance with the Surface Mining Reclamation Act (SMARA) of 1975. Application for a CUP will require compliance with the California Environmental Quality Act (CEQA). Golden Queen will also apply to the Bureau of Land Management (BLM) for a Plan of Operations in compliance with the National Environmental Policy Act (NEPA).

The California Air Resources Board document "*Risk Management Guidelines for New and Modified Sources of Toxic Air Pollutants*" was used as the primary guidance for this assessment of air toxics and impacts. Golden Queen emission estimates use the methodologies of development previously utilized for quantification of air toxics from similar mining operations. Estimated particulate matter emissions were used in an air dispersion model to estimate project-associated impacts on ambient air quality. Estimated emissions of toxic air contaminants were used in an air dispersion model and post processor to calculate ambient air concentrations. These calculated concentrations were used to arrive at health conservative estimates of increased individual carcinogenic risk that might occur as a result of continuous exposure over a 15 year project lifetime. In a similar fashion, calculated concentrations of compounds with non-carcinogenic adverse health effects were used to calculate hazard indices (ratio of expected ambient air concentrations to acceptable exposure levels). The multi-pathway air toxic analysis includes determination of the effects of toxins entering the body through six pathways in addition to the inhalation pathway.

To assess whether the proposed project emissions of particulate matter with an aerodynamic diameter less than 10 microns (PM_{10}) would cause or contribute to an exceedance of the national or California ambient air quality standards (NAAQS or CAAQS), results of a dispersion model were added to actual background concentrations derived from approximately one year of onsite PM_{10} monitoring data. When added to the average background PM_{10} concentration of 18.8 $\mu g/m^3$, the maximum estimated 24-hour average PM_{10} concentration during normal operations is 45.62 $\mu g/m^3$. The NAAQS and CAAQS are 150 $\mu g/m^3$ and 50 $\mu g/m^3$, respectively. Therefore, the proposed project will not cause or contribute to an exceedance of the NAAQS or CAAQS.

Although this project is not subject to federal Prevention of Significant Deterioration (PSD) regulations, two analyses were performed to determine whether the proposed project would adversely impact the ambient air quality or visibility of any Class I wilderness areas located within 100 kilometers (km) of the project site. First, a dispersion model was run to ensure that the project would not cause an increase equal to or greater than the PSD Class I increment for PM_{10} of 5 $\mu g/m^3$ (annual average). Results of that modeling indicate that the proposed project will only contribute about 0.21 $\mu g/m^3$ of PM_{10} to the ambient air quality of a Class I area within 100 km of the project site. Secondly, a visibility analysis was conducted. The proposed project did not exceed the screening criteria, so visibility is not expected to degrade in any of the Class I areas within 100 km of the project.

Carcinogenic risk and hazard indices for the proposed project were calculated at certain specific locations near the property in addition to a grid of locations surrounding the property. The maximum estimated excess cancer risk (MECR) from project emissions at any point off the property is 4.989×10^{-6}, located at UTM coordinates 391,445 E by 3,870,519 N. Estimated risk values are based on the ground level concentration of emissions at the specific locations. The health conservative nature of the assumptions inherent in the risk assessment procedures imply that the risk to actual residents living near the proposed facility will, in all likelihood, be less than the values indicated. Kern County Air Pollution Control District has established that a level of ten in one million excess cancer risk is considered significant.

The maximum estimated acute hazard index based on project emissions is 0.0137 located at UTM coordinates 390,904 E by 3,872,902 N. The maximum estimated chronic hazard index based on proposed project emissions is 0.0516 located at UTM coordinates 390,039 E by 3,871,272 N. The hazard index is a measure of the predicted concentration compared to the acceptable exposure level. Neither acute nor chronic exposure is significant because they are both below 1.0.

The methods of calculating carcinogenic risk, hazard indices and cancer burden are based on a "worst-plausible" situation and are health conservative in nature. They predict the upper limits of risk based upon the given emission rates. That is to say, the real risks are not likely to be higher than the predicted numbers and may well be significantly less. This health conservative approach to assessing risk is the one chosen by the United States Environmental Protection Agency (EPA), the California Office of Environmental Health Hazards Assessment (OEHHA), and the California Air Resources Board (CARB), and is used here for consistency with the concepts and basic assumptions utilized by the reviewing agencies.

This comparison of estimated toxic emissions assumes continuous exposure to the maximum concentration of emissions for the entire life of the project. This method ignores the reduction in exposure realized by periods of time spent away from the residence on vacation, at work, or indoors. Each phase of a risk assessment development contains some level of uncertainty as a result of bias, variability, or uncertain information. This air toxics and potential health impacts assessment is designed to estimate environmental impacts, human exposure, and the potential for adverse effects, which in many cases cannot be directly measured or have not yet occurred. When actual measurements cannot be made, conservative assumptions are required to complete the calculations.

I. INTRODUCTION

As part of the CUP and Plan of Operation applications for the proposed project, this document provides a calculation of PM_{10} emissions and air toxics emissions, and presents the potential additional health risk resulting from the proposed project along the property boundary and at specific locations located near the Golden Queen property, in addition to a grid of locations extending out from the property. The specific locations were placed to represent existing residences or groups of residences.

A modeling protocol was submitted to the Kern County Air Pollution Control District (KCAPCD) on February 10, 1995. Subject to conditions contained in a letter from KCAPCD dated June 1, 1995 (Appendix A), the protocol was approved. These conditions have been incorporated into this analysis. Since the protocol was approved, the dispersion model ISC3 has been officially revised by EPA. The updated version of the model (ISC3) is used for the PM_{10} analysis relative to the ambient air quality standard as well as providing input for the air toxics analysis.

The California Air Resources Board document "*Risk Management Guidelines for New and Modified Sources of Toxic Air Pollutants*" was used as the primary guidance for this assessment of air toxics and impacts assessment.

Approximately two years of pre-project onsite meteorological data was gathered and has been used in the dispersion modeling analysis and one year of PM_{10} data was collected to determine background levels of fine particulate matter.

II. FACILITY DESCRIPTION

Golden Queen proposes to operate an open pit gold mining operation near the town of Mojave, California. Operations at this site, like all mining operations, will have a finite production life. Golden Queen anticipates that there will be a number of open pit mining areas within the ultimate mining limit on the property. When the operation begins, drilling and blasting in the pits will occur. After the material is blasted, it is loaded into large off-road mining trucks and transported to either an overburden pile or the ore processing area. The ore will be crushed to the proper size, agglomerated, and then conveyed to the heap leach pad. The heap leach pad will have dilute cyanide solution circulating through the ore to dissolve precious metals and carry them to the collection area which, in this project, will be in the toe of the heap to minimize the exposed surface area and evaporative losses of the solution.

The project is located in a rural setting having a low population density within the surrounding five kilometers. The project area occupies most of the higher elevations of Soledad Mountain, with only a limited area of the mountain at or above the release point of the mine operations not under control of Golden Queen. Exhibit 1 is a regional location map showing the facility relative to surrounding communities and Exhibit 2 shows the property outline on a topographic map of Soledad Mountain.

A review of estimated emissions from the property indicates this will not be considered a major source of air contaminant emissions as defined under the Prevention of Significant Deterioration (PSD) guidelines.

Sources of emissions relating to open pit mining include fugitive dust emissions from drilling, blasting, truck loading and unloading, hauling, dozing, and wind erosion. In addition, combustion sources, a baghouse, and process equipment are emission points relating to the processing area. Exhibit 3 shows the location of all point and area sources for the proposed project.

For risk analysis and risk management of toxic compounds, it is necessary to evaluate the known sources of toxic air emissions and their potential health impacts including fugitive sources which are not currently quantified for purposes of determining criteria pollutant emissions from a facility. Golden Queen has a number of sources which are considered fugitive sources, including blasting, loading and unloading, transport, and wind erosion. All emission sources have been quantified using EPA AP-42 factors.

III. MODEL SELECTION

The EPA approved model ISC3 has recently been approved for use in regulatory settings and replaces the older version ISC2. ISC3 has been used to quantify PM_{10} concentrations at 367 of the receptor locations examined in the toxics analysis.

ISC3

ISC3 is the latest update to the Industrial Source Complex model and it now provides handling of different terrain elevations as well as rectangular and rotated area sources. Simple, intermediate, and complex terrain elevations relative to the sources are all supported by ISC3. This model has been used to evaluate the effects of the 24-hour average PM_{10} concentrations at 367 of the locations analyzed in the air toxics analysis. ISC3 input data for the PM_{10} analysis is contained in Appendix B.

The estimated ambient air concentrations of PM_{10} and chemicals emitted during operations at the facility were modeled at selected locations using the EPA approved model ISC3 coupled with site-specific sequential, short-term meteorological data. ISC3 is a steady-state Gaussian plume dispersion model designed to assess pollutant concentrations from a wide variety of sources including point, area, and volume sources. ISC3 is appropriate for industrial source complexes, rural or urban areas, flat or rolling terrain, transport distances less than 50 kilometers, and 1-hour to annual averaging times. ISC3 is also appropriate for receptors located below the top of the stack. The model options that have been used for this assessment follow the guidelines specified by EPA and CARB. Specific model setup options that have been used to model the proposed project emissions are indicated in the model input in Appendix C.

The facility is located on Soledad Mountain at elevations ranging from 2900 feet to 4000 feet. Parts of the mountain itself are not under control of Golden Queen and are located at or above some of the proposed sources of emissions. The topography around the facility is generally located below the facility in all directions beyond the mountain. The majority of significant sources at the Golden Queen facility are fugitives which occur at ground level. The fugitive sources are treated as area or volume sources. These types of sources are basically terrain following (i.e. low stack heights with low stack velocities).

ISC3 output yields total concentrations and source contributions of multiple sources at designated coordinates, using the coordinates, stack parameters, and emission rates associated with each source, combined with the meteorology. For purposes of this evaluation, ISC3 has been utilized with unit emission rates (1.0 gm/sec for point sources and 1.0 gm/sec/m^2 for area sources). Concentrations from ISC3 are scaled by a post processing program which relates emission rates of toxic constituents from each individual source to a total concentration and a maximum expected excess risk.

ISC3 output is passed to a post-processor (ACE2588) which analyzes each source contribution for each toxic compound to calculate the potential excess cancer risk and the potential acute and chronic hazard indices from each toxic compound at each receptor location.

For the evaluation of project concentration levels, 20 specific receptor locations were set at selected residences near the property. In addition, a grid was utilized for analysis of the estimated excess risk including 70 locations on the property boundary spaced 250 meters apart, and a grid of 100 meter, 250 meter, and 500 meter spaced locations. The property boundary is irregular in shape with "windows" of uncontrolled land surrounded by land under Golden Queen's control. After the peak offsite location was determined using the 250 and 500 meter spaced grid, a grid of 100 meter (100M) spaced locations was established around the peak. The peak offsite location is on the property boundary, and is topographically high up on the mountain. Exhibit 4 shows fence line and specific receptor locations and Exhibit 5 shows the gridded receptor locations used in ISC3 and ACE2588 relative to the property.

ACE2588

The post-processor (ACE2588) has been widely used in California for compliance with California Code of Regulations Title 17, 93300-93347. CCR17 requires facilities to quantify air toxic emissions and to prepare health risk assessments if certain thresholds are exceeded. Input to ACE2588 includes the concentrations calculated by the air dispersion model ISC3, air toxic emissions by source, unit risk factors of each toxic compound, and information relating to multiple pathway effects related to health risk.

The multi-pathway analysis is based on assumptions provided by the California Air Pollution Control Officers Association (CAPCOA) and listed in the Risk Assessment Guidelines dated January 1992. No modifications to these assumptions were made for this facility. The assumptions include a settling velocity of 2 cm/sec for controlled sources and 5 cm/sec for uncontrolled sources. Other assumptions are that only respirable particulate affects the inhalation pathway while concentrations of toxic compounds in total suspended particulate (TSP) are used for all other pathways.

Output from ACE2588 includes the concentration of each toxic compound in $\mu g/m^3$ for both maximum hourly and annual concentration, receptor estimated total excess cancer risk, source and pollutant contributions to total cancer risk at specified receptor locations, receptor maximum acute exposure, and receptor maximum chronic exposure. In addition, graphical representations of the excess risk and relationship to the acute and chronic exposure levels are possible using the output from ACE2588.

IV. MODEL PARAMETERS

Meteorological Data

Golden Queen contracted for the operation of a meteorological data gathering station on its property starting in 1989 with operations continuing for approximately two years. Exhibit 6 shows the location of the monitoring station in relationship to the Golden Queen property. Air Sciences, Inc. gathered and checked the data from this station. This meteorological data was collected in accordance with United States Environmental Protection Agency guidelines and has been verified for completeness. Upper air soundings from Winnemucca, Nevada were used with the surface data to create two annual datasets for model input. The first is for the period September 1, 1989 through August 31, 1990 (1990). Exhibit 7 is a windrose for 1990. The second is for the period August 20, 1990 through August 19, 1991 (1991). Exhibit 8 is a windrose for 1991. Table 1 shows the frequency distribution of the wind speed and wind direction for 1991 data.

The onsite meteorological data was processed using the EPA program PCRAMMET to include calculated urban and rural mixing heights based on Holzworth using the upper air data gathered from Winnemucca, Nevada. (The Winnemucca station is the nearest representative station with data processed and available to the public.) The calculation method results in some abnormally low morning mixing heights. The morning rural mixing heights were adjusted to be no lower than the lowest calculated value above 50 meters on any given day. Modification of the early morning mixing heights is reported to have been allowed by EPA on other occasions involving primarily fugitive dust sources.

Based on analysis using the peak receptor locations and the proposed sources, the 1991 meteorological data provides the highest estimated excess risk at the peak receptor location and is utilized in this evaluation.

Emission Points

Emission sources have been divided into 46 sources for analysis of the air toxics. For the PM_{10} analysis, only 40 sources were used (the remaining six do not contribute to PM_{10} emissions. Table 2 shows how the sources were separated for use as modeling input. This was necessary for more accurate representation of area sources. Exhibit 3 shows source locations for the proposed project.

Emission Summary

All toxic air contaminants from fugitive dust sources are quantified on the basis of their fraction in total suspended particulate (TSP). This is a new project and only limited analysis of onsite materials has been performed. Analysis of raw materials from nearby mines has been used to quantify the estimated concentrations of toxic contaminants in the various fugitive dust sources. The analysis results and a qualitative discussion of which sample may be more representative of the project are included in Appendix D.

PM_{10} quantification is based primarily on AP-42 emission factors and is used for the ambient air quality analysis as well as the toxics analysis.

For risk assessment purposes, two sets of modeled quantities are required. Risk associated with the inhalation pathway is based on particulate matter less than 10 microns (PM_{10}); all other pathways are analyzed based on the toxic fraction in TSP. These two analyses are combined to determine the estimated increase in maximum excess cancer risk from the facility. The AB2588 regulation specifies an applicable degree of accuracy (ADA) in pounds per year for each substance. The regulation does not require facilities to quantify emissions of substances if the calculated annual emissions of that substance are less than the ADA. The following substances are likely present but are estimated to be emitted at less than the ADA and are therefore not included in the analysis; acetaldehyde, acrolein, benzene, formaldehyde, naphthalene, PAH, propylene, selenium, toluene, and xylene.

Golden Queen has estimated that the activity level will be 6.0 million tons per year of ore and 24.0 million tons per year of overburden. The ACE2588 model has been run twice at this activity level, once with the PM_{10} portion of emissions to determine excess cancer risk from inhalation pathways and once with TSP emissions to determine the excess cancer risk from all other pathways. Table 3 contains emissions estimates for the proposed project PM_{10} emissions. Table 4 contains estimated emissions for the proposed project TSP case. Backup data and emissions estimates for the various emissions sources are contained in Appendix E.

Multipathway Analysis

There are only six chemicals in the Golden Queen inventory which are identified in the CAPCOA guidelines as having multipathway effects. They are arsenic, beryllium, cadmium, lead, mercury and polycyclic aromatic hydrocarbons. The impact of these chemicals on the alternate pathways has been analyzed using the ACE2588 post-processing program. The alternate pathways are dermal, soil, water, plants, animal, and mother's milk. For the Golden Queen project, water, animal and mother's milk pathways do not contribute to the total risk, because, there are no open water sources which can be affected, there is no commercial grazing land, and the multipathway chemicals in this project are not currently considered to affect the mother's milk pathway.

V. EMISSIONS CHARACTERIZATION

Estimates for the proposed project emissions have been based upon production plans provided by Golden Queen using emission factors approved by EPA, CARB, and KCAPCD and source tests. These methods can be conservative because of uncertainty surrounding site-specific input parameters.

The primary sources of toxic air contaminants are fugitive dust emissions resulting from the drilling, blasting, and materials handling of the ore and the overburden. Naturally contained in the fugitive dust are certain elements which are classified as toxic air contaminants. Golden Queen has analyzed samples of ore material and overburden from the property to determine toxic concentrations in the dust. These samples were analyzed by a third party laboratory to determine the quantity of each of the elements considered to be toxic air contaminants. In addition, samples from two nearby gold mining operations were also reviewed. Results of these samples were used in calculating the toxic fraction of PM_{10} estimated to be emitted into the air from each distinct operation. Raw material analyses are included in Appendix D. Emissions from the combustion sources were based on either relevant source tests or Ventura County Air Pollution Control District factors.

Other emission factors used are from EPA AP-42 or have been determined from actual source testing at similar facilities. Reference to the specific emission factors used is also contained in the backup calculations spreadsheets. Appendix E contains the calculation spreadsheets used in determining the quantity of proposed project emissions.

The unit risk factors which are the basis for carcinogenic risk calculations are based upon a 70-year exposure to the toxic chemicals. Golden Queen has not yet begun operating on the property except for exploratory analyses. The maximum estimated life of the project is approximately 15 years.

VI. DISCUSSION

Hazard Assessment

OEHHA evaluates chemical substances for cancer health effects, for chronic, non-cancer health effects that may appear years after exposure, and for acute, non-cancer health effects that appear almost immediately after exposure. In some cases, a substance causes more than one type of health effect, and is regulated accordingly. As an example of one of these substances, lead is regulated as a carcinogen, as causing chronic, non-cancer health effects, and as causing acute, non-cancer health effects.

For purposes of this analysis, Golden Queen has determined that the following toxic air contaminants, as identified by CAPCOA, are being emitted, or could be emitted in the future, from the facility:

Acetaldehyde	Lead
Acrolein	Manganese
Arsenic	Mercury
Arsine	Naphthalene
Benzene	Nickel
Beryllium	PAHs
Cadmium	Selenium
Copper	Toluene
Formaldehyde	Zinc
Hydrogen Cyanide	

Contaminants resulting from mining operations include arsenic, beryllium, cadmium, copper, lead, manganese, mercury, nickel, selenium, and zinc.

Appendix E contains a listing of all regulated air toxics which are expected to be emitted and the emission source. The emission rates (lbs per year and lbs per hour) used for modeling each different production scenario are also included.

Exposure Assessment

The multi-pathway air toxic analysis includes determination of the effects of toxins entering the body through six pathways in addition to the inhalation pathway. They are dermal, soil, water, plants, animal, and mother's milk. For the proposed project, the water and animal pathways are not considered because there are no open sources of water and no commercial cattle or poultry is raised nearby. In addition, the mother's milk pathway is not considered because it is affected only by toxins not present in the Golden Queen emissions. The conservative assumptions made by CARB are used in the analysis of each of the remaining pathways. The soil pathway is the ingestion of dust which is deposited on food eaten by the individual. Assumptions in the soil pathway analysis include a mixing depth of only 1 centimeter in the soil and 110 mg/day of soil consumption. The plant pathway analyzes the effect of toxins taken into the plants grown in the backyard of the residences. In reality, it is unlikely that the residents of arid desert communities such as those near the Golden Queen property are consuming two-thirds of a pound per day of homegrown fruits and vegetables.

Human exposure was estimated for a hypothetical individual residing continuously at the point of maximum impact. This approach assumes that the individual is always in the same location, exposed to the calculated ambient concentration, which would seldom, if ever, occur. Periods spent away from the residence due to vacation or work would result in lower exposures and lower estimated excess cancer risk to the individual.

Exposure was estimated using the procedures and assumptions presented in the CAPCOA AB2588 guidelines. In several ingestion pathways, the CAPCOA guidelines give a mechanism for incorporating site-specific information. For purposes of this analysis, the defaults included in the guidelines were used.

Acceptable exposure levels (AELs) are used as indicators of potential adverse, non-carcinogenic, health effects. They are generally set by agencies based on the most sensitive adverse health effect reported in literature. AELs are designed with a margin of safety to protect the most sensitive individuals. A hazard index of 1 represents the acceptable exposure for an individual substance. Different substances may affect different target organs and exposure to two or more substances which may affect the same target organ are assumed to be additive. However, exposures above the acceptable exposure levels (i.e. a total hazard index greater than one) do not necessarily equate to significant health risks because of the margin of safety included in the AEL. AELs have been established for various substances for both maximum short-term (one-hour) exposure levels and maximum long-term exposure levels.

Adjustments

Mixing Height - When the onsite meteorological data sets (1990 and 1991) were processed with Winnemucca upper air data to include mixing heights, they contained some early morning mixing heights which were extremely low. These low mixing heights resulted in area source emissions with low stacks and low exit velocities bouncing emissions between the ground and the mixing height for long distances. Early morning mixing heights below 50 meters were modified to set morning values to no lower than the lowest value above 50 meters as the lowest mixing height on any given day throughout the year.

Applicable Degree of Accuracy - After estimation of the total quantity of each toxic chemical emitted, a determination was made as to whether the total exceeded the applicable degree of accuracy (ADA) for reporting emissions for the particular chemical under AB2588. If the total was less than one-half the respective ADA, the chemical was not included in the impacts assessment. Estimated emissions of the following chemicals from the proposed project are below one-half the ADA; acetaldehyde, acrolein, benzene, formaldehyde, naphthalene, PAH, selenium, toluene, and xylenes.

Project Life - The unit risk factors (URF) assigned to each carcinogenic chemical are based in part on the assumption of a 70-year exposure to the chemical. The estimated excess risk associated with potential emissions from the Golden Queen facility should be based upon the facility life. Golden Queen has estimated that the Proposed Project will be completed in less than ten years.

This analysis assumes that the Proposed Project will be completed in fifteen years to allow for possible changes in operating rate or finding additional reserves. The estimated excess cancer risk from the facility based on project emissions has therefore been reduced using a factor of 15/70 to reflect potential excess risk based upon only fifteen years at the projected emissions rate. Table 5 shows the total estimated cancer risk at seventy (70) years and at fifteen (15) years for each of the evaluated locations. Golden Queen proposes to have a condition limiting operations to a maximum of fifteen (15) years on its permits. This will allow Golden Queen and reviewing agencies to review the operations at that time to determine if operations may continue. Factoring the estimated excess cancer risk was discussed with KCAPCD and verbally approved provided the estimated project life is realistic and conservative and is included as a permit condition.

Evaluation of Results

PM_{10} Impacts - Based on analysis of the emission sources, the majority of emissions are not considered quantifiable for purposes of determining Prevention of Significant Deterioration (PSD) status. Golden Queen is not required to obtain a PSD permit. However, in accordance with KCAPCD requirements (as outlined in the letter dated June 1, 1995, Appendix A), an analysis of the maximum 24-hour average PM_{10} concentration has been prepared for comparison with the State and National Ambient Air Quality Standards.

Golden Queen obtained results from PM_{10} monitoring during 1990 and 1991 for the purposes of determining background levels of PM_{10}. Two samplers were set up to gather dual 24-hour samples approximately every three days. Exhibit 9 is a representation of the average of the 24-hour results over time. Table 6 shows the actual sampling results as well as the arithmetic and geometric mean for the year. The maximum 24-hour average concentration was 51 $\mu g/m^3$. The annual geometric mean for PM_{10} was 18.8 $\mu g/m^3$. One day exceeded the California Ambient Air Quality Standard (CAAQS) of 50 $\mu g/m^3$. No days exceeded the federal NAAQS of 150 $\mu g/m^3$. The background exceedance of the CAAQS occurred on May 30, 1991. It should be noted that regionally PM_{10} concentrations have been declining at the CARB station located in Mojave. Exhibit 10 shows the first and second high and the annual geometric and arithmetic mean PM_{10} concentrations for the period 1988 through 1994. From 1990 to 1994, the annual geometric mean declined 34 percent from 24.4 $\mu g/m^3$ to 16.1 $\mu g/m^3$. An assessment of the potential PM_{10} impacts of the proposed project was prepared using ISC3 for multiple receptor locations including 20 certain nearby residential receptors, 70 locations along the proposed fenceline approximately 250 meters apart, and 277 receptors in 250 and 500 meter grid spacing.

The maximum estimated 24-hour average PM_{10} concentration from the proposed project is 26.82 $\mu g/m^3$. When added to the annual average background concentration of 18.8 $\mu g/m^3$, the total concentration is 45.62 $\mu g/m^3$. This is less than the California AAQS of 50 $\mu g/m^3$. Appendix F contains a summary of the results of the 24-hour PM_{10} concentration analysis.

Class I Area Impact Analysis - Telephone contact with EPA Region IX in San Francisco revealed that sources of fugitive emissions which are not covered by local permits and regulations are also not included in the total emissions used to classify a stationary source as a major source. Using this criteria, the Proposed Project is not considered a major source and is not subject to Prevention of Significant Deterioration (PSD) requirements.

Even though the Proposed Project is not considered a major source, an analysis of the effect of estimated PM_{10} emissions on Class I Wilderness areas within 100 kilometers was performed. This analysis is required of major sources to determine whether or not a PSD source increases pollutant concentrations by 1 $\mu g/m^3$ or more (24-hour average) in a Class I area. The Class I areas within 100 kilometers of the Proposed Project are Dome Wilderness to the north, and San Gabriel Wilderness to the south. This analysis shows an estimated maximum increase in 24-hour average PM_{10} concentration of only 0.12 $\mu g/m^3$ at Dome and 0.22 $\mu g/m^3$ at San Gabriel. Appendix G contains the ISC3 output for the Class 1 wilderness areas.

An analysis of the impact on visibility at the Class I areas was also performed using the visual effects screening model VISCREEN. Using the conservative assumption that all emissions of particulate matter from the project come from the same source, the maximum visual impacts screening criteria are not exceeded. Appendix H contains the results of the visibility screening analysis.

The significance levels for increases in PM_{10} concentrations at the Class I areas are not exceeded and the visibility screening criteria are not exceeded, therefore, no significant impact is expected to occur at the nearest Class I areas.

Carcinogens - The highest estimated maximum risk observed offsite is 4.989×10^{-6} and is located at UTM coordinates 391,445 E by 3,870,519 N which is on the southern fence line. KCAPCD has established that a level of ten in one million excess cancer risk is considered significant. Therefore, the excess carcinogenic risk from this project is not considered significant. Only one of the twenty specific receptor locations has an excess risk greater than one in one million (1.152×10^{-6}) and all are located at least 1 1/2 miles from the point of maximum impact.

Table 5 shows the risk by pathway for the proposed project for all receptors. Supporting data for these calculations is contained in Appendix E. Appendix I contains the ACE2588 output from the proposed project PM_{10} case and Appendix J contains the ACE2588 output from the proposed project TSP case. All input and output files have also been provided on disk. Emissions of arsenic and beryllium are the primary cause of the excess cancer risk associated with the proposed project. Table 7 shows the breakdown of the cancer risk by pollutant from the ACE2588 output for the proposed project TSP case. 88.1 percent of the estimated excess risk at the point of maximum impact comes from exposure to arsenic compounds which are contained in the fugitive dust emissions relating to the normal activities of the facility. 7.02 percent of the estimated excess risk comes from exposure to beryllium. While the proportions of risk by pollutant will change at different locations, arsenic and beryllium will be the predominant pollutants at all locations.

Arsenic is reported in the EPA Toxic Substances Control Act Inventory. Arsenic and its compounds are on the Community Right-To-Know List. For purposes of the impacts assessment, all arsenic (all sources and all forms) is reported as elemental arsenic. Arsenic is classified as a human carcinogen based on evidence from lung cancer mortality rates in populations exposed primarily through inhalation (smelter workers) and increased skin cancer incidence in several populations consuming drinking water high in arsenic concentration (Taiwan, Chile, Argentina and Mexico). No excess skin cancer incidence has been observed in United States residents consuming relatively high levels of arsenic in drinking water. Additionally, there has not been consistent demonstration of arsenic carcinogenicity in test animals for various chemical forms of arsenic administered by different routes to several species.

Unloading (sources 26 through 30) accounts for 46.62 percent of the estimated excess risk at the location of the maximum excess cancer risk. Loading, (sources 13 through 18) hauling, (sources 19 through 24) and wind erosion (sources 36 through 40) account for 24.06 percent, 9.77 percent, and 9.47 percent, respectively. Table 8 shows the estimated 70-year lifetime cancer risk by source for proposed project emissions at the peak location from the TSP analysis.

Exhibit 11 shows the isopleth of the one in one million excess cancer risk from the proposed project.

Acute Health Effects - Analysis of the proposed project shows that exposure to air toxics which may have acute effects on the central nervous system (the maximally exposed toxicological endpoint) have estimated hazard indices less than 1.0. Copper, nickel and hydrogen cyanide are the only substances emitted in sufficient amounts to quantify and the maximum total acute hazard index is 0.0137 from exposure to hydrogen cyanide. Exposure from the proposed project is less than the AEL defined for each of the listed chemicals individually. Table 9 shows the acute hazard index by pollutant and by toxicological endpoint for the peak receptor from the proposed project. Thus, no significant health effects are anticipated to occur from acute exposure to any air toxics.

Chronic Health Effects - Analysis of the proposed project shows that exposure to air toxics which may have chronic effects on the central nervous system (the maximally exposed

VII. ALTERNATIVES ASSESSMENT

Impacts on air quality vary with the rate of mining and processing of ore from the project area. For example, increasing the processing rate will result in an increase in maximum 24-hour PM_{10} concentration compared to the Proposed Action. Discussion of the various alternatives presented and the impact on air quality including ambient air concentrations of PM_{10} and the incremental excess cancer risk are presented below.

No Action Alternative

Air Quality

The project is located on a mountain in the Kern County portion of the southeast desert air basin. As such the weather conditions are hot and dry leading to potential for erosion emissions from existing disturbed surfaces. There are approximately 215 acres of existing disturbed areas relating to past underground mining operations including a large tailings pile on the northern flank of the mountain, which are subject to wind erosion emissions. The surface of the tailings pile consists of more finely textured soil than will be exposed at the heap leach pads or the overburden piles proposed for this project. The current sources of air pollution would continue to exist if the proposed project is not enacted.

Under the Proposed Action, previously disturbed areas located within the project area will be removed as potential sources of air pollution either through reclamation or elimination by mining activity. The tailings pile is located where heap leach pad #1 will be built and is proposed as base material for the heap. This tailings pile is a large emissions generator when the wind speed exceeds the threshold velocity. On the same basis used to calculate emissions from the proposed project, it is estimated that the disturbed acreage has annual emissions of 136,000 pounds of PM_{10} per year. If the project is not developed these emissions may continue because there are no required reclamation plans for these past disturbances.

The net long term effect (from the end of the project and beyond) is that annual emissions from the project area would be decreased by 126,100 pounds of PM_{10} per year resulting in long term beneficial impact to the air basin. Thus the long term effect of the no action alternative is detrimental even though it may be considered **Less Than Significant**.

Health Hazards/Public Safety

Under the no action alternative, the toxic air contaminants projected to be released from the proposed project will not be emitted. However, the toxic portions of PM_{10} which are in the tailings pile will still be emitted. In addition, open mine shafts on the mountain will also remain so some risk to public health and safety which was not quantified, will remain. Thus, the long term effect of the no action alternative may be detrimental even though it may be considered **Less Than Significant**.

Increased Mining and Processing Rates

Air Quality

Under this scenario, mining and processing rates would increase by 20% resulting in higher PM_{10} emissions for a shorter time period than in the Proposed Action. A review of the PM_{10} emissions sources was made to determine which sources would increase and which would remain the same as in the Proposed Action. For calculation of the 24-hour PM_{10} concentration, the blasting and wind erosion sources will remain the same as in the Proposed Action. Blasting only occurs once per day but on more days than in the Proposed Action. Wind erosion is based on the surface area of exposed overburden piles which would be similar to the Proposed Action. Emissions from all other sources would increase by approximately 20% from the increased activity.

For the dispersion model prepared for the Proposed Action, the individual sources are evaluated for their contribution to the maximum impact. A sensitivity analysis was conducted by scaling the appropriate variable sources by 20% and keeping the unaffected sources unchanged to estimate the impact of the increase in production rate on the maximum calculated PM_{10} concentration. The estimated 24-hour PM_{10} concentration resulting from the increased processing is a maximum of 50.13 $\mu g/m^3$. Table 11 shows expected changes from the higher processing rates.

The PM_{10} emission calculations assume the use of Best Available Control Technology for all sources having BACT determinations including roads and equipment, similar to the Proposed Action. The increased rate alternative may be able to apply currently unknown controls or use other mitigation measures to limit the impact on PM_{10} emissions resulting from the project to below the California 24-hour standard of 50 $\mu g/m^3$.

As part of the Proposed Action, meteorological and PM_{10} monitoring will be established to show compliance with ambient air quality standards. It may be possible, through onsite data collection, to show that the dispersion modeling overestimates the maximum concentration, thus allowing an increased rate. The environmental impact to existing air quality of this alternative may be **Significant** but could be either avoided or mitigated prior to full implementation.

Health Hazards/Public Safety

A sensitivity analysis was conducted on the incremental excess health risk from toxic air contaminants from the proposed action to evaluate any changes resulting from the increased mining and processing rate alternative. The increased mining and processing rate is not designed for a larger project, just a project completed in a shorter time period. The incremental health risk is based on the project life as well as the amount of emissions. For all sources except wind erosion, the total emissions from the project will not change in the accelerated rate scenario, thus the incremental risk from these sources will be the same as in the Proposed Action. Wind erosion emissions are based on the surface area of the overburden piles exposed for a certain time period. Since the increased processing rate alternative will have a 17% shorter life, wind erosion emissions and their contribution to the total risk will be reduced by approximately 17%. Wind erosion emissions represent approximately 9.8% of the risk at the maximum exposed location. Reducing the project life by 17% will reduce the overall health risk from the project by about 1.7% to 4.9×10^{-6} from 5.0×10^{-6} for the Proposed Action. These results are essentially the same within the accuracy of the emissions estimates and the air dispersion model. Thus, the environmental impact to health hazards and public safety of this alternative is **Less Than Significant.**

Decreased Mining and Processing Rates

Air Quality

Under this scenario, mining and processing rates would decrease by 20% resulting in lower PM_{10} emissions for a longer time period than in the Proposed Action. A review of the PM_{10} emissions sources was made to determine which sources would decrease and which would remain the same as in the Proposed Action. For calculation of the 24-hour PM_{10} concentration, the blasting and wind erosion sources will remain the same as in the Proposed Action. Blasting only occurs once per day but on fewer days than in the Proposed Action. Wind erosion is based on the surface area of exposed overburden piles which would be similar to the Proposed Action. Emissions from all other sources would decrease by approximately 20% from the decreased activity.

For the dispersion model prepared for the Proposed Action, the individual sources are evaluated for their contribution to the maximum impact. A sensitivity analysis was conducted by scaling the appropriate variable sources by 20% and keeping the unaffected sources unchanged, to estimate the impact of the decrease in production rate on the maximum calculated PM_{10} concentration. The estimated 24-hour PM_{10} concentration resulting from the increased processing is a maximum of 41.12 $\mu g/m^3$. Table 11 shows expected changes from the lower processing rates. This is below the California 24-hour standard of 50 $\mu g/m^3$, and slightly less than the estimated PM_{10} concentration of 45.62 $\mu g/m^3$ for the Proposed Action. Thus, the long term effect of the no action alternative is **Less Than Significant.**

Health Hazards/Public Safety

A sensitivity analysis was also conducted on the incremental excess health risk from toxic air contaminants from the proposed action to evaluate any changes resulting from the decreased mining and processing rate alternative. The decreased mining and processing rate is not designed for a smaller project, just a project completed in a longer period of time. The incremental risk is based on the project life as well as the amount of emissions. For all sources except wind erosion, the total emissions from the project will not change in an decreased rate scenario, thus the incremental risk from these sources will be the same as in the Proposed Action. Wind erosion emissions are based on the surface area of the overburden piles exposed for a certain time period. Since the decreased processing rate alternative will have a 20% longer life, wind erosion emissions and their contribution to the total risk will be increased by approximately 20%. Wind erosion emissions represent approximately 9.8% of the risk at the maximum exposed location. Increasing the project life by 20% will increase the overall risk from the project by about 2% to 5.1×10^{-6} from 5.0×10^{-6} for the Proposed Action. These results are essentially the same within the accuracy of the emissions estimates and the air dispersion model. Thus, the environmental impact to health hazards and public safety of this alternative is **Less Than Significant**.

Reduced Project Size

Air Quality

Under this scenario, the total size of the project will be reduced by approximately 70%, but the daily and annual processing rates would be approximately the same as the Proposed Action. For calculation of the 24-hour PM_{10} concentration, all emission sources will remain the same as in the Proposed Action. Therefore no change is expected in the maximum estimated 24-hour PM_{10} concentration of 45.62 $\mu g/m^3$. Thus, the long term effect of the no action alternative is **Less Than Significant**.

Health Hazards/Public Safety

A sensitivity analysis was conducted on the incremental excess risk from the proposed action to evaluate any changes resulting from the reduced project size alternative. The incremental risk is based on the project life as well as the amount of emissions. A 70% reduction in project size and a 70% reduction in project life will result in a 70% reduction in maximum excess cancer risk compared to the Proposed Action. Therefore, the maximum expected excess cancer risk from this alternative is 1.5×10^{-6} compared to the risk of 5.0×10^{-6} from the Proposed Action. Thus, the environmental impact to health hazards and public safety of this alternative is **Less Than Significant**.

VIII. REFERENCES

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U.S. Environmental Protection Agency, 1986. Guidelines on Air Quality Models. EPA-450/2-78-027R. U.S. EPA, Research Triangle Park, NC.

U.S. Environmental Protection Agency, 1995. Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources. AP-42 Fifth Edition, U.S. EPA, Research Triangle Park, NC.

toxicological endpoint) have estimated hazard indices less than 1.0. Arsenic, hydrogen cyanide, lead, and manganese all may have chronic effects on the central nervous system. Exposure from the proposed project is less than the AEL defined for each of these chemicals individually and presents an estimated hazard index of only 0.05163 combined. Table 10 shows the chronic hazard index by pollutant and toxicological endpoint for the peak receptor from the proposed project.

All estimated exposures are individually and collectively less than the AEL. No significant health effects are anticipated to occur from chronic exposure to any air toxics.

Worker Exposure - Toxic air contaminants projected to be emitted from the site were evaluated to determine the exposure to workers on the site. 136 discrete receptors were placed throughout the project area. Presumably, no worker would be exposed to the highest peak concentration on the project site due to the mobility of the working areas. Under worst case conditions, the maximum excess cancer risk at the 136 receptors was used with exposure of 2000 hours per year and a 15 year project life to determine maximum exposure to onsite workers. The highest estimated maximum risk to a worker is 1.83×10^{-6} (1.83 in one million).

Output Results - Model input and output is available on diskette and will be supplied to the Kern County Air Pollution Control District and will be available to others on request. Please contact Greg McNeish, WZI Inc., 4700 Stockdale Highway, Suite #120, Bakersfield, CA 93309.

NOTE: The intermediate file used for processing the toxics information is extremely large (~750 megabytes).

TABLES

TABLE 1

STATION NUMBER: 98765 Soledad Mountain Onsite Met
YEAR 1991

FREQUENCY DISTRIBUTION (JAN-DEC)

WIND SPEED (METERS/SECOND)

DIRECTION *	< 1.5	< 2.6	< 3.8	< 5.0	> OR = 5.0	TOTAL
1	42	102	54	25	8	231
2	52	93	52	25	13	235
3	33	88	57	29	35	242
4	23	68	57	43	42	233
5	22	70	61	42	38	233
6	19	57	71	49	25	221
7	9	43	52	46	24	174
8	5	28	25	11	12	81
9	8	21	17	7	12	65
10	10	18	15	8	6	57
11	13	28	16	7	8	72
12	16	25	18	4	34	97
13	9	29	16	8	38	100
14	9	32	13	1	24	79
15	16	59	10	2	0	87
16	16	68	17	3	1	105
17	20	115	26	3	4	168
18	2	10	2	2	0	16
19	25	76	49	13	29	192
20	14	53	54	30	115	266
21	6	44	48	44	201	343
22	15	34	42	40	172	303
23	10	33	32	28	82	185
24	18	36	37	18	50	159
25	10	27	31	21	38	127
26	16	34	33	22	32	137
27	37	33	27	27	47	171
28	14	28	26	27	92	187
29	28	31	29	43	254	385
30	35	38	24	42	630	769
31	49	36	25	29	959	1098
32	39	60	29	39	694	861
33	52	69	26	23	136	306
34	42	88	41	13	43	227
35	38	77	45	19	18	197
36	52	77	40	19	9	197
TOTAL	840	1914	1248	820	3933	

TOTAL NUMBER OF OBSERVATIONS = 8760

TOTAL NUMBER OF CALMS = 5

* NOTE - DIRECTION FROM WHICH THE WIND IS BLOWING
1STATION NUMBER: 98765 Soledad Mountain Onsite Met
YEAR 1991

FREQUENCY DISTRIBUTION (JAN-DEC)

WIND SPEED (METERS/SECOND)

DIRECTION *	< 1.5	< 2.6	< 3.8	< 5.0	> OR = 5.0	TOTAL
1	.004795	.011644	.006164	.002854	.000913	0.026370
2	.005936	.010616	.005936	.002854	.001484	0.026826
3	.003767	.010046	.006507	.003311	.003995	0.027626
4	.002626	.007763	.006507	.004909	.004795	0.026598
5	.002511	.007991	.006963	.004795	.004338	0.026598
6	.002169	.006507	.008105	.005594	.002854	0.025228
7	.001027	.004909	.005936	.005251	.002740	0.019863
8	.000571	.003196	.002854	.001256	.001370	0.009247
9	.000913	.002397	.001941	.000799	.001370	0.007420
10	.001142	.002055	.001712	.000913	.000685	0.006507
11	.001484	.003196	.001826	.000799	.000913	0.008219
12	.001826	.002854	.002055	.000457	.003881	0.011073
13	.001027	.003311	.001826	.000913	.004338	0.011416
14	.001027	.003653	.001484	.000114	.002740	0.009018
15	.001826	.006735	.001142	.000228	.000000	0.009932
16	.001826	.007763	.001941	.000342	.000114	0.011986
17	.002283	.013128	.002968	.000342	.000457	0.019178
18	.000228	.001142	.000228	.000228	.000000	0.001826
19	.002854	.008676	.005594	.001484	.003311	0.021918
20	.001598	.006050	.006164	.003425	.013128	0.030365
21	.000685	.005023	.005479	.005023	.022945	0.039155
22	.001712	.003881	.004795	.004566	.019635	0.034589
23	.001142	.003767	.003653	.003196	.009361	0.021119
24	.002055	.004110	.004224	.002055	.005708	0.018151
25	.001142	.003082	.003539	.002397	.004338	0.014498
26	.001826	.003881	.003767	.002511	.003653	0.015639
27	.004224	.003767	.003082	.003082	.005365	0.019521

TABLE 1 (continued)

28	.001598	.003196	.002968	.003082	.010502	0.021347
29	.003196	.003539	.003311	.004909	.028995	0.043950
30	.003995	.004338	.002740	.004795	.071918	0.087785
31	.005594	.004110	.002854	.003311	.109475	0.125342
32	.004452	.006849	.003311	.004452	.079224	0.098288
33	.005936	.007877	.002968	.002626	.015525	0.034932
34	.004795	.010046	.004680	.001484	.004909	0.025913
35	.004338	.008790	.005137	.002169	.002055	0.022489
36	.005936	.008790	.004566	.002169	.001027	0.022489
TOTAL	0.095890	0.218493	0.142466	0.093607	0.448973	

PERCENTAGE OF CALMS = 0.057078

PERCENTAGE OF MISSING = 0.000000

* NOTE - DIRECTION FROM WHICH THE WIND IS BLOWING

1 INPUT SUMMARY

STATION NUMBER	YEAR	NUMBER OF RECORDS
98765	91	8760

STATION NUMBER: 98765 Soledad Mountain Onsite Met

WINDROSE

Direction	Frequency	Mean wind speed
N	5.92	2.7
NNE	6.27	3.5
NE	5.14	3.6
ENE	1.78	3.6
E	1.75	3.0
ESE	2.63	4.7
SE	2.26	2.2
SSE	2.24	2.2
S	8.54	4.1
SSW	7.29	5.2
SW	3.74	4.1
WSW	3.94	3.6
W	8.41	5.8
WNW	27.50	7.7
NW	7.23	4.3
NNW	5.31	2.6
Total	99.94	

Average wind speed: 5.0 m/s

Percent calms: 0.06

TABLE 2
Golden Queen Mining Company
Emission Sources & PM10 Emissions

PM10 emissions

Ore Production, MMTPY	6.0
Waste Removal, MMTPY	24.0

Blasting Sq Ft.	77400

	Area	Source	g/s hr	g/s/m2	g/s yr	g/s/m2	lb/hr	lb/yr	lb/yr/source
1	100000	DRILLING_PIT1	3.017E-03	3.017E-08	2.535E-03	2.535E-08	0.02	176.28	2400
2	100000	DRILLING_PIT2	3.017E-03	3.017E-08	2.535E-03	2.535E-08	0.02	176.28	
3	385000	DRILLING_PIT3	1.162E-02	3.017E-08	9.762E-03	2.535E-08	0.09	678.66	
4	472500	DRILLING_PIT4	1.426E-02	3.017E-08	1.198E-02	2.535E-08	0.11	832.90	
5	152000	DRILLING_PIT5	4.586E-03	3.017E-08	3.854E-03	2.535E-08	0.04	267.94	
6	152000	DRILLING_PIT6	4.586E-03	3.017E-08	3.854E-03	2.535E-08	0.04	267.94	
7	1	BLASTING_PIT1	1.978E+01	1.978E+01	4.356E-02	4.356E-02	157.00	3028.28	41230
8	1	BLASTING_PIT2	1.978E+01	1.978E+01	4.356E-02	4.356E-02	0.00	3028.28	
9	1	BLASTING_PIT3	1.978E+01	1.978E+01	1.677E-01	1.677E-01	0.00	11658.87	
10	1	BLASTING_PIT4	1.978E+01	1.978E+01	2.058E-01	2.058E-01	0.00	14308.61	
11	1	BLASTING_PIT5	1.978E+01	1.978E+01	6.621E-02	6.621E-02	0.00	4602.98	
12	1	BLASTING_PIT6	1.978E+01	1.978E+01	6.621E-02	6.621E-02	0.00	4602.98	
13	100000	TRKLOAD_PIT1	4.914E-02	4.914E-07	3.737E-02	3.737E-07	0.39	2598.16	35374
14	100000	TRKLOAD_PIT2	4.914E-02	4.914E-07	3.737E-02	3.737E-07	0.39	2598.16	
15	385000	TRKLOAD_PIT3	1.892E-01	4.914E-07	1.439E-01	3.737E-07	1.50	10002.93	
16	472500	TRKLOAD_PIT4	2.322E-01	4.914E-07	1.766E-01	3.737E-07	1.84	12276.32	
17	152000	TRKLOAD_PIT5	7.469E-02	4.914E-07	5.680E-02	3.737E-07	0.59	3949.21	
18	152000	TRKLOAD_PIT6	7.469E-02	4.914E-07	5.680E-02	3.737E-07	0.59	3949.21	
19	25000	HAUL_1	2.919E-02	1.168E-06	1.688E-02	6.751E-07	0.23	1173.34	15975
20	25000	HAUL_2	2.919E-02	1.168E-06	1.688E-02	6.751E-07	0.23	1173.34	
21	96250	HAUL_3	1.124E-01	1.168E-06	6.498E-02	6.751E-07	0.89	4517.35	
22	118125	HAUL_4	1.379E-01	1.168E-06	7.974E-02	6.751E-07	1.09	5544.02	
23	38000	HAUL_5	4.438E-02	1.168E-06	2.565E-02	6.751E-07	0.35	1783.47	
24	38000	HAUL_6	4.438E-02	1.168E-06	2.565E-02	6.751E-07	0.35	1783.47	
25	1	BAGHOUSE_1	1.805E-01	1.805E-01	1.374E-01	1.374E-01	1.43	9551.00	
26	215625	TRU-WST_1	5.181E-02	2.403E-07	5.674E-02	2.631E-07	0.41	3944.84	28299
27	433125	TRU-WST_2	1.041E-01	2.403E-07	1.140E-01	2.631E-07	0.83	7923.98	
28	137100	TRU-WST_3	3.294E-02	2.403E-07	3.608E-02	2.631E-07	0.26	2508.23	
29	256850	TRU-WST_4	6.172E-02	2.403E-07	6.759E-02	2.631E-07	0.49	4699.04	
30	504125	TRU-WST_5	1.211E-01	2.403E-07	1.327E-01	2.631E-07	0.96	9222.91	
31	215625	DOZING_WASTE_1	3.316E-02	1.538E-07	3.785E-03	1.755E-08	0.26	263.15	1888
32	433125	DOZING_WASTE_2	6.660E-02	1.538E-07	7.603E-03	1.755E-08	0.53	528.59	
33	137100	DOZING_WASTE_3	2.108E-02	1.538E-07	2.407E-03	1.755E-08	0.17	167.32	
34	256850	DOZING_WASTE_4	3.950E-02	1.538E-07	4.509E-03	1.755E-08	0.31	313.46	
35	504125	DOZING_WASTE_5	7.752E-02	1.538E-07	8.849E-03	1.755E-08	0.62	615.24	
36	215625	WIND_EROSION1	1.651E-02	7.657E-08	1.704E-02	7.904E-08	0.13	1184.89	8500
37	433125	WIND_EROSION2	3.316E-02	7.657E-08	3.423E-02	7.904E-08	0.26	2380.08	
38	137100	WIND_EROSION3	1.050E-02	7.657E-08	1.084E-02	7.904E-08	0.08	753.38	
39	256850	WIND_EROSION4	1.967E-02	7.657E-08	2.030E-02	7.904E-08	0.16	1411.42	
40	504125	WIND_EROSION5	3.860E-02	7.657E-08	3.985E-02	7.904E-08	0.31	2770.23	
41	599250	ORE_PAD1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00	0.00	
42	318750	ORE_PAD2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00	0.00	
43	1	MERCURY_RETORT	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00	0.00	
44	1	ADSORPTION	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00	0.00	
45	1	FURNACE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00	0.00	
46	1	DIESEL_TANK	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.00	0.00	
			1.207E+02	1.189E+02	2.060E+00	7.304E-01	1.730E+02	1.432E+05	

TABLE 3
GOLDEN QUEEN MINING
PM_{10} BASED AIR TOXICS EMISSION

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS

All Substances

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	Acetaldehyde lb/yr	Acetaldehyde lb/hr	Acrolein lb/yr	Acrolein lb/hr	Arsenic lb/yr	Arsenic lb/hr	Benzene lb/yr	Benzene lb/hr
Drilling	0	0	0	0	1.846E-01	2.779E-05	0	0
Baghouses	0	0	0	0	4.166E-01	6.249E-05	0	0
Blasting	0	0	0	0	3.169E+00	6.849E-03	0	0
Conveyor	0	0	0	0	2.455E-01	3.682E-05	0	0
Truck Load	0	0	0	0	2.721E+00	2.316E-04	0	0
Truck Unload-Ore	0	0	0	0	0.000E+00	0.000E+00	0	0
Haulage	0	0	0	0	1.362E+00	2.689E-04	0	0
Dozing - Ore	0	0	0	0	0.000E+00	0.000E+00	0	0
Truck Unload-Waste	0	0	0	0	2.412E+00	2.316E-04	0	0
Dozing - Waste	0	0	0	0	1.609E-01	1.609E-04	0	0
Wind Erosion	0	0	0	0	7.246E-01	8.014E-05	0	0
Ore Heap	0	0	0	0	0	0	0	0
Mecury Retort	0	0	0	0	0	0	0	0
Adsorption	0	0	0	0	0	0	0	0
Furnace	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0	0	0.000E+00	0.000E+00
Diesel Tank	0	0	0	0	0	0	0.000E+00	0.000E+00
TOTALS	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.140E+01	7.949E-03	0.000E+00	0.000E+00

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	Beryllium lb/yr	Beryllium lb/hr	Cadmium lb/yr	Cadmium lb/hr	Chromium VI lb/yr	Chromium VI lb/hr	Copper lb/yr	Copper lb/hr
Drilling	2.528E-02	1.676E-05	6.636E-03	1.002E-06	1.200E-03	1.630E-07	1.554E-02	2.331E-06
Baghouses	4.911E-01	7.366E-05	1.457E-02	2.185E-06	4.776E-03	7.163E-07	3.598E-02	5.396E-06
Blasting	4.376E-01	8.072E-03	1.139E-01	2.394E-04	2.062E-02	7.850E-05	2.667E-01	5.914E-04
Conveyor	2.893E-01	4.340E-05	8.582E-03	1.287E-06	2.814E-03	4.221E-07	2.120E-02	3.180E-06
Truck Load	3.726E-01	2.730E-04	9.781E-02	8.098E-06	1.769E-02	2.655E-06	2.290E-01	2.000E-05
Truck Unload-Ore	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.000E-05
Haulage	4.992E-03	9.858E-07	4.912E-02	9.701E-06	7.988E-03	1.577E-06	1.142E-01	2.256E-05
Dozing - Ore	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Truck Unload-Waste	8.843E-03	2.730E-04	8.702E-02	8.098E-06	1.415E-02	2.655E-06	2.023E-01	2.000E-05
Dozing - Waste	5.899E-04	5.899E-07	5.805E-03	5.805E-06	9.439E-04	9.439E-07	1.350E-02	1.350E-05
Wind Erosion	2.656E-03	2.937E-07	2.614E-02	2.891E-06	4.250E-03	4.700E-07	6.078E-02	6.721E-06
Ore Heap	0	0	0	0	0	0	0	0
Mecury Retort	0	0	0	0	0	0	0	0
Adsorption	0	0	0	0	0	0	0	0
Furnace	0	0	3.632E-02	1.164E-04	3.440E-04	1.103E-06	0	0
Diesel Tank	0	0	0	0	0	0	0	0
TOTALS	1.633E+00	8.754E-03	4.459E-01	3.949E-04	7.477E-02	8.921E-05	9.592E-01	7.051E-04

TABLE 3
GOLDEN QUEEN MINING
PM_{10} BASED AIR TOXICS EMISSION

ESTIMATED EMISSIONS W/O ND & ADA	lb/yr	lb/hr	lb/yr	lb/hr	lb/yr	lb/hr	lb/yr	lb/hr
CHEMICALS	Formaldehyde		HCN		Lead		Manganese	
Drilling	0	0	0	0	3.928E-02	9.693E-06	1.879E-01	2.553E-05
Baghouses	0	0	0	0	2.840E-01	4.260E-05	7.478E-01	1.122E-04
Blasting	0	0	0	0	6.759E-01	4.668E-03	3.228E+00	1.229E-02
Conveyor	0	0	0	0	1.673E-01	2.510E-05	4.406E-01	6.609E-05
Truck Load	0	0	0	0	5.790E-01	1.579E-04	2.770E+00	4.158E-04
Truck Unload-Ore	0	0	0	0	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Haulage	0	0	0	0	2.081E-01	4.109E-05	1.251E+00	2.470E-04
Dozing - Ore	0	0	0	0	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Truck Unload-Waste	0	0	0	0	3.686E-01	1.579E-04	2.216E+00	4.158E-04
Dozing - Waste	0	0	0	0	2.459E-02	2.459E-05	1.478E-01	1.478E-04
Wind Erosion	0	0	0	0	1.107E-01	1.224E-05	6.656E-01	7.360E-05
Ore Heap	0	0	2.173E+04	2.481E+00	0	0	0	0
Mecury Retort	0	0	0.000E+00	0.000E+00	0	0	0	0
Adsorption	0	0	1.284E+02	9.000E-03	0	0	0	0
Furnace	0.000E+00	0.000E+00	0	0	0	0	0	0
Diesel Tank	0	0	0	0	0	0	0	0
TOTALS	0.000E+00	0.000E+00	2.186E+04	2.490E+00	2.457E+00	5.139E-03	1.165E+01	1.380E-02

ESTIMATED EMISSIONS W/O ND & ADA	lb/yr	lb/hr	lb/yr	lb/hr	lb/yr	lb/hr	lb/yr	lb/hr
CHEMICALS	Mercury		Nickel		Naphthalene		PAHs	
Drilling	6.789E-03	1.060E-06	5.616E-03	8.476E-07	0	0	0	0
Baghouses	1.092E-02	1.638E-06	2.483E-02	3.725E-06	0	0	0	0
Blasting	1.165E-01	1.795E-04	9.650E-02	4.082E-04	0	0	0	0
Conveyor	6.434E-03	9.651E-07	1.463E-02	2.195E-06	0	0	0	0
Truck Load	1.001E-01	6.071E-06	8.278E-02	1.381E-05	0	0	0	0
Truck Unload-Ore	0.000E+00	6.071E-06	0.000E+00	0.000E+00	0	0	0	0
Haulage	5.192E-02	1.025E-05	3.634E-02	7.177E-06	0	0	0	0
Dozing - Ore	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0	0	0	0
Truck Unload-Waste	9.197E-02	6.071E-06	6.438E-02	1.381E-05	0	0	0	0
Dozing - Waste	6.135E-03	6.135E-06	4.295E-03	4.295E-06	0	0	0	0
Wind Erosion	2.763E-02	3.055E-06	1.934E-02	2.138E-06	0	0	0	0
Ore Heap	0	0	0	0	0	0	0	0
Mecury Retort	1.249E-02	5.620E-05	0	0	0	0	0	0
Adsorption	0	0	0	0	0	0	0	0
Furnace	1.355E-04	4.344E-07	0	0	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Diesel Tank	0	0	0	0	0	0	0	0
TOTALS	4.310E-01	2.775E-04	3.487E-01	4.562E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

TABLE 3
GOLDEN QUEEN MINING
PM_{10} BASED AIR TOXICS EMISSION

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	lb/yr Propylene	lb/hr Propylene	lb/yr Selenium	lb/hr Selenium	lb/yr Toluene	lb/hr Toluene	lb/yr Xylenes	lb/hr Xylenes
Drilling	0	0	0.000E+00	0.000E+00	0	0	0	0
Baghouses	0	0	0.000E+00	0.000E+00	0	0	0	0
Blasting	0	0	0.000E+00	0.000E+00	0	0	0	0
Conveyor	0	0	0.000E+00	0.000E+00	0	0	0	0
Truck Load	0	0	0.000E+00	0.000E+00	0	0	0	0
Truck Unload-Ore	0	0	0.000E+00	0.000E+00	0	0	0	0
Haulage	0	0	0.000E+00	0.000E+00	0	0	0	0
Dozing - Ore	0	0	0.000E+00	0.000E+00	0	0	0	0
Truck Unload-Waste	0	0	0.000E+00	0.000E+00	0	0	0	0
Dozing - Waste	0	0	0.000E+00	0.000E+00	0	0	0	0
Wind Erosion	0	0	0.000E+00	0.000E+00	0	0	0	0
Ore Heap	0	0	0	0	0	0	0	0
Mecury Retort	0	0	0	0	0	0	0	0
Adsorption	0	0	0	0	0	0	0	0
Furnace	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Diesel Tank	0	0	0	0	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTALS	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	lb/yr Zinc	lb/hr Zinc	lb/yr PM10	lb/hr PM10
Drilling	2.373E-02	3.562E-06	2.400E+03	3.260E-01
Baghouses	5.476E-02	8.214E-06	9.551E+03	1.433E+00
Blasting	4.073E-01	9.001E-04	4.123E+04	1.570E+02
Conveyor	3.226E-02	4.840E-06	5.627E+03	8.441E-01
Truck Load	3.497E-01	3.044E-05	3.537E+04	5.310E+00
Truck Unload-Ore	0.000E+00	3.044E-05	0.000E+00	0.000E+00
Haulage	1.745E-01	3.446E-05	1.598E+04	3.155E+00
Dozing - Ore	0.000E+00	0.000E+00	0.000E+00	1.888E+00
Truck Unload-Waste	3.092E-01	3.044E-05	2.830E+04	2.950E+00
Dozing - Waste	2.062E-02	2.062E-05	1.888E+03	1.888E+00
Wind Erosion	9.286E-02	1.027E-05	8.500E+03	9.400E-01
Ore Heap	0	0	0	0
Mecury Retort	0	0	0	0
Adsorption	0	0	0	0
Furnace	0	0	0	0
Diesel Tank	0	0	0	0
TOTALS	1.465E+00	1.073E-03	148844	176

TABLE 4
GOLDEN QUEEN MINING
TSP BASED AIR TOXICS EMISSION
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ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS

All Substances

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	Acetaldehyde lb/yr	Acetaldehyde lb/hr	Acrolein lb/yr	Acrolein lb/hr	Arsenic lb/yr	Arsenic lb/hr	Benzene lb/yr	Benzene lb/hr
Drilling	0	0	0	0	3.877E-01	5.836E-05	0	0
Baghouses	0	0	0	0	8.709E-01	1.306E-04	0	0
Blasting	0	0	0	0	3.169E+00	6.849E-03	0	0
Conveyor	0	0	0	0	6.137E-01	9.206E-05	0	0
Truck Load	0	0	0	0	5.753E+00	4.895E-04	0	0
Truck Unload-Ore	0	0	0	0	0.000E+00	0.000E+00	0	0
Haulage	0	0	0	0	3.026E+00	5.976E-04	0	0
Dozing - Ore	0	0	0	0	0.000E+00	0.000E+00	0	0
Truck Unload-Waste	0	0	0	0	5.101E+00	4.895E-04	0	0
Dozing - Waste	0	0	0	0	9.585E-01	9.585E-04	0	0
Wind Erosion	0	0	0	0	1.449E+00	1.611E-04	0	0
Ore Heap	0	0	0	0	0	0	0	0
Mecury Retort	0	0	0	0	0	0	0	0
Adsorption	0	0	0	0	0	0	0	0
Furnace	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0	0	0.000E+00	0.000E+00
Diesel Tank	0	0	0	0	0	0	0.000E+00	0.000E+00
TOTALS	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.133E+01	9.826E-03	0.000E+00	0.000E+00

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	Beryllium lb/yr	Beryllium lb/hr	Cadmium lb/yr	Cadmium lb/hr	Chromium VI lb/yr	Chromium VI lb/hr	Copper lb/yr	Copper lb/hr
Drilling	5.309E-02	3.520E-05	1.394E-02	2.105E-06	2.520E-03	3.423E-07	3.263E-02	4.895E-06
Baghouses	1.027E+00	1.540E-04	3.045E-02	4.567E-06	9.983E-03	1.497E-06	7.520E-02	1.128E-05
Blasting	4.376E-01	8.072E-03	1.139E-01	2.394E-04	2.062E-02	7.850E-05	2.667E-01	5.914E-04
Conveyor	7.234E-01	1.085E-04	2.145E-02	3.218E-06	7.034E-03	1.055E-06	5.299E-02	7.949E-06
Truck Load	7.878E-01	5.769E-04	2.068E-01	1.711E-05	3.740E-02	5.610E-06	4.841E-01	4.226E-05
Truck Unload-Ore	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.226E-05
Haulage	1.109E-02	2.191E-06	1.092E-01	2.156E-05	1.775E-02	3.505E-06	2.538E-01	5.012E-05
Dozing - Ore	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Truck Unload-Waste	1.870E-02	5.769E-04	1.840E-01	1.711E-05	2.992E-02	5.610E-06	4.278E-01	4.226E-05
Dozing - Waste	3.514E-03	3.514E-06	3.457E-02	3.457E-05	5.622E-03	5.622E-06	8.039E-02	8.039E-05
Wind Erosion	5.313E-03	5.906E-07	5.228E-02	5.812E-06	8.500E-03	9.450E-07	1.216E-01	1.351E-05
Ore Heap	0	0	0	0	0	0	0	0
Mecury Retort	0	0	0	0	0	0	0	0
Adsorption	0	0	0	0	0	0	0	0
Furnace	0	0	3.632E-02	1.164E-04	3.440E-04	1.103E-06	0	0
Diesel Tank	0	0	0	0	0	0	0	0
TOTALS	3.067E+00	9.530E-03	8.029E-01	4.619E-04	1.397E-01	1.038E-04	1.795E+00	8.863E-04

TABLE 4
GOLDEN QUEEN MINING
TSP BASED AIR TOXICS EMISSION

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	Formaldehyde lb/yr	Formaldehyde lb/hr	HCN lb/yr	HCN lb/hr	Lead lb/yr	Lead lb/hr	Manganese lb/yr	Manganese lb/hr
Drilling	0	0	0	0	8.249E-02	2.036E-05	3.946E-01	5.360E-05
Baghouses	0	0	0	0	5.936E-01	8.904E-05	1.563E+00	2.345E-04
Blasting	0	0	0	0	6.759E-01	4.668E-03	3.228E+00	1.229E-02
Conveyor	0	0	0	0	4.183E-01	6.275E-05	1.102E+00	1.652E-04
Truck Load	0	0	0	0	1.224E+00	3.336E-04	5.856E+00	8.785E-04
Truck Unload-Ore	0	0	0	0	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Haulage	0	0	0	0	4.624E-01	9.131E-05	2.780E+00	5.489E-04
Dozing - Ore	0	0	0	0	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Truck Unload-Waste	0	0	0	0	7.793E-01	3.336E-04	4.685E+00	8.785E-04
Dozing - Waste	0	0	0	0	1.464E-01	1.464E-04	8.804E-01	8.804E-04
Wind Erosion	0	0	0	0	2.214E-01	2.462E-05	1.331E+00	1.480E-04
Ore Heap	0	0	2.173E+04	2.481E+00	0	0	0	0
Mecury Retort	0	0	0.000E+00	0.000E+00	0	0	0	0
Adsorption	0	0	1.284E+02	9.000E-03	0	0	0	0
Furnace	0.000E+00	0.000E+00	0	0	0	0	0	0
Diesel Tank	0	0	0	0	0	0	0	0
TOTALS	0.000E+00	0.000E+00	2.186E+04	2.490E+00	4.604E+00	5.770E-03	2.182E+01	1.608E-02

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	Mercury lb/yr	Mercury lb/hr	Nickel lb/yr	Nickel lb/hr	Naphthalene lb/yr	Naphthalene lb/hr	PAHs lb/yr	PAHs lb/hr
Drilling	1.426E-02	2.225E-06	1.179E-02	1.780E-06	0	0	0	0
Baghouses	2.283E-02	3.424E-06	5.191E-02	7.786E-06	0	0	0	0
Blasting	1.165E-01	1.795E-04	9.650E-02	4.082E-04	0	0	0	0
Conveyor	1.609E-02	2.413E-06	3.658E-02	5.487E-06	0	0	0	0
Truck Load	2.116E-01	1.283E-05	1.750E-01	2.917E-05	0	0	0	0
Truck Unload-Ore	0.000E+00	1.283E-05	0.000E+00	0.000E+00	0	0	0	0
Haulage	1.154E-01	2.278E-05	8.076E-02	1.595E-05	0	0	0	0
Dozing - Ore	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0	0	0	0
Truck Unload-Waste	1.945E-01	1.283E-05	1.361E-01	2.917E-05	0	0	0	0
Dozing - Waste	3.654E-02	3.654E-05	2.558E-02	2.558E-05	0	0	0	0
Wind Erosion	5.525E-02	6.143E-06	3.868E-02	4.300E-06	0	0	0	0
Ore Heap	0	0	0	0	0	0	0	0
Mecury Retort	1.249E-02	5.620E-05	0	0	0	0	0	0
Adsorption	0	0	0	0	0	0	0	0
Furnace	1.355E-04	4.344E-07	0	0	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Diesel Tank	0	0	0	0	0	0	0	0
TOTALS	7.955E-01	3.481E-04	6.529E-01	5.274E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

TABLE 4
GOLDEN QUEEN MINING
TSP BASED AIR TOXICS EMISSION

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	lb/yr	lb/hr	lb/yr	lb/hr	lb/yr	lb/hr	lb/yr	lb/hr
	Propylene		Selenium		Toluene		Xylenes	
Drilling	0	0	0.000E+00	0.000E+00	0	0	0	0
Baghouses	0	0	0.000E+00	0.000E+00	0	0	0	0
Blasting	0	0	0.000E+00	0.000E+00	0	0	0	0
Conveyor	0	0	0.000E+00	0.000E+00	0	0	0	0
Truck Load	0	0	0.000E+00	0.000E+00	0	0	0	0
Truck Unload-Ore	0	0	0.000E+00	0.000E+00	0	0	0	0
Haulage	0	0	0.000E+00	0.000E+00	0	0	0	0
Dozing - Ore	0	0	0.000E+00	0.000E+00	0	0	0	0
Truck Unload-Waste	0	0	0.000E+00	0.000E+00	0	0	0	0
Dozing - Waste	0	0	0.000E+00	0.000E+00	0	0	0	0
Wind Erosion	0	0	0.000E+00	0.000E+00	0	0	0	0
Ore Heap	0	0	0	0	0	0	0	0
Mecury Retort	0	0	0	0	0	0	0	0
Adsorption	0	0	0	0	0	0	0	0
Furnace	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Diesel Tank	0	0	0	0	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTALS	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ESTIMATED EMISSIONS W/O ND & ADA CHEMICALS	lb/yr	lb/hr	lb/yr	lb/hr
	Zinc		PM10	
Drilling	4.983E-02	7.479E-06	5.040E+03	6.846E-01
Baghouses	1.145E-01	1.717E-05	1.997E+04	2.995E+00
Blasting	4.073E-01	9.001E-04	4.123E+04	1.570E+02
Conveyor	8.066E-02	1.210E-05	1.407E+04	2.110E+00
Truck Load	7.394E-01	6.433E-05	7.479E+04	1.122E+01
Truck Unload-Ore	0.000E+00	6.433E-05	0.000E+00	0.000E+00
Haulage	3.878E-01	7.659E-05	3.550E+04	7.010E+00
Dozing - Ore	0.000E+00	0.000E+00	0.000E+00	1.124E+01
Truck Unload-Waste	6.537E-01	6.433E-05	5.983E+04	6.230E+00
Dozing - Waste	1.228E-01	1.228E-04	1.124E+04	1.124E+01
Wind Erosion	1.857E-01	2.065E-05	1.700E+04	1.890E+00
Ore Heap	0	0	0	0
Mecury Retort	0	0	0	0
Adsorption	0	0	0	0
Furnace	0	0	0	0
Diesel Tank	0	0	0	0
TOTALS	2.742E+00	1.350E-03	278670	212

TABLE 5
Golden Queen Mining

Receptor	X	Y	Inhale	Dermal	Soil	Water	Plants	Animal	Mother's Milk	70 Year Sum	15 Year Sum
1	389400	3868050	1.480E-07	1.939E-08	9.053E-07	0	3.745E-07	0	0	1.447E-06	3.101E-07
2	392550	3868000	2.205E-07	2.910E-08	1.359E-06	0	5.624E-07	0	0	2.171E-06	4.652E-07
3	392600	3868000	2.190E-07	2.888E-08	1.348E-06	0	5.581E-07	0	0	2.154E-06	4.616E-07
4	390250	3868800	2.852E-07	3.751E-08	1.751E-06	0	7.248E-07	0	0	2.799E-06	5.998E-07
5	390300	3868750	2.878E-07	3.787E-08	1.768E-06	0	7.317E-07	0	0	2.825E-06	6.054E-07
6	390300	3868500	2.615E-07	3.444E-08	1.608E-06	0	6.653E-07	0	0	2.569E-06	5.505E-07
7	393500	3868200	2.308E-07	3.037E-08	1.418E-06	0	5.870E-07	0	0	2.266E-06	4.856E-07
8	393750	3868300	2.330E-07	3.072E-08	1.434E-06	0	5.933E-07	0	0	2.291E-06	4.909E-07
9	393800	3868450	2.424E-07	3.201E-08	1.495E-06	0	6.181E-07	0	0	2.388E-06	5.117E-07
10	389750	3870450	3.065E-07	4.005E-08	1.870E-06	0	7.740E-07	0	0	2.991E-06	6.409E-07
11	395050	3870600	1.250E-07	1.651E-08	7.707E-07	0	3.189E-07	0	0	1.231E-06	2.638E-07
12	392200	3872600	5.438E-07	7.211E-08	3.367E-06	0	1.392E-06	0	0	5.375E-06	1.152E-06
13	390800	3873450	2.388E-07	3.161E-08	1.476E-06	0	6.096E-07	0	0	2.356E-06	5.049E-07
14	390750	3873400	2.408E-07	3.187E-08	1.488E-06	0	6.146E-07	0	0	2.375E-06	5.089E-07
15	390700	3873400	2.346E-07	3.102E-08	1.449E-06	0	5.983E-07	0	0	2.313E-06	4.956E-07
16	390650	3873200	2.664E-07	3.527E-08	1.647E-06	0	6.802E-07	0	0	2.629E-06	5.634E-07
17	393500	3873700	1.385E-07	1.830E-08	8.543E-07	0	3.534E-07	0	0	1.365E-06	2.925E-07
18	392450	3873750	2.097E-07	2.776E-08	1.296E-06	0	5.358E-07	0	0	2.069E-06	4.434E-07
19	391950	3873950	2.094E-07	2.766E-08	1.292E-06	0	5.337E-07	0	0	2.063E-06	4.421E-07
20	391900	3873400	2.934E-07	3.899E-08	1.821E-06	0	7.523E-07	0	0	2.906E-06	6.227E-07
21	389750	3871670	2.164E-07	2.820E-08	1.317E-06	0	5.441E-07	0	0	2.106E-06	4.513E-07
22	389759	3871788	2.027E-07	2.638E-08	1.232E-06	0	5.087E-07	0	0	1.970E-06	4.221E-07
23	389778	3871908	2.023E-07	2.633E-08	1.230E-06	0	5.077E-07	0	0	1.966E-06	4.213E-07
24	389803	3872019	2.007E-07	2.619E-08	1.223E-06	0	5.050E-07	0	0	1.955E-06	4.189E-07
25	389826	3872073	2.018E-07	2.639E-08	1.232E-06	0	5.088E-07	0	0	1.969E-06	4.219E-07
26	389928	3872271	2.114E-07	2.784E-08	1.300E-06	0	5.373E-07	0	0	2.077E-06	4.451E-07
27	390027	3872472	2.154E-07	2.834E-08	1.323E-06	0	5.472E-07	0	0	2.114E-06	4.530E-07
28	390083	3872582	2.298E-07	3.021E-08	1.411E-06	0	5.834E-07	0	0	2.254E-06	4.830E-07
29	390203	3872720	2.921E-07	3.858E-08	1.801E-06	0	7.446E-07	0	0	2.876E-06	6.163E-07
30	390252	3872758	3.098E-07	4.103E-08	1.916E-06	0	7.917E-07	0	0	3.059E-06	6.555E-07
31	390352	3872832	3.246E-07	4.307E-08	2.012E-06	0	8.310E-07	0	0	3.211E-06	6.881E-07
32	390434	3872889	3.261E-07	4.328E-08	2.022E-06	0	8.350E-07	0	0	3.226E-06	6.913E-07
33	390669	3872895	3.618E-07	4.813E-08	2.248E-06	0	9.282E-07	0	0	3.586E-06	7.684E-07
34	390904	3872902	3.999E-07	5.322E-08	2.485E-06	0	1.026E-06	0	0	3.964E-06	8.494E-07
35	391139	3872908	4.263E-07	5.683E-08	2.654E-06	0	1.096E-06	0	0	4.233E-06	9.071E-07
36	391374	3872915	4.443E-07	5.935E-08	2.772E-06	0	1.144E-06	0	0	4.420E-06	9.471E-07
37	391609	3872921	4.451E-07	5.952E-08	2.780E-06	0	1.148E-06	0	0	4.433E-06	9.499E-07
38	391844	3872928	4.312E-07	5.761E-08	2.691E-06	0	1.111E-06	0	0	4.291E-06	9.195E-07
39	391844	3872735	5.269E-07	7.045E-08	3.290E-06	0	1.359E-06	0	0	5.246E-06	1.124E-06
40	391845	3872543	6.682E-07	8.948E-08	4.179E-06	0	1.725E-06	0	0	6.662E-06	1.428E-06
41	391845	3872351	9.218E-07	1.224E-07	5.715E-06	0	2.358E-06	0	0	9.117E-06	1.954E-06
42	391846	3872159	1.408E-06	1.854E-07	8.662E-06	0	3.574E-06	0	0	1.383E-05	2.964E-06
43	392046	3872165	1.187E-06	1.553E-07	7.251E-06	0	2.996E-06	0	0	1.159E-05	2.484E-06
44	392246	3872172	1.066E-06	1.385E-07	6.465E-06	0	2.679E-06	0	0	1.035E-05	2.218E-06
45	392446	3872178	1.022E-06	1.317E-07	6.149E-06	0	2.552E-06	0	0	9.855E-06	2.112E-06
46	392647	3872185	6.478E-07	8.425E-08	3.932E-06	0	1.631E-06	0	0	6.295E-06	1.349E-06
47	392658	3871975	9.587E-07	1.227E-07	5.726E-06	0	2.374E-06	0	0	9.181E-06	1.967E-06
48	392670	3871765	1.238E-06	1.590E-07	7.419E-06	0	3.081E-06	0	0	1.190E-05	2.550E-06
49	392682	3871555	1.465E-06	1.876E-07	8.755E-06	0	3.636E-06	0	0	1.404E-05	3.009E-06
50	392694	3871346	1.573E-06	2.010E-07	9.380E-06	0	3.895E-06	0	0	1.505E-05	3.225E-06
51	392887	3871350	8.359E-07	1.078E-07	5.032E-06	0	2.086E-06	0	0	8.062E-06	1.728E-06
52	393080	3871355	5.559E-07	7.222E-08	3.371E-06	0	1.397E-06	0	0	5.396E-06	1.156E-06
53	393273	3871360	4.036E-07	5.276E-08	2.463E-06	0	1.020E-06	0	0	3.939E-06	8.441E-07
54	393467	3871365	3.332E-07	4.297E-08	2.007E-06	0	8.296E-07	0	0	3.213E-06	6.885E-07
55	393467	3871139	3.555E-07	4.612E-08	2.153E-06	0	8.911E-07	0	0	3.446E-06	7.384E-07
56	393467	3870914	3.868E-07	5.005E-08	2.337E-06	0	9.669E-07	0	0	3.741E-06	8.016E-07
57	393467	3870689	4.027E-07	5.280E-08	2.465E-06	0	1.021E-06	0	0	3.941E-06	8.445E-07
58	393252	3870689	5.053E-07	6.614E-08	3.088E-06	0	1.279E-06	0	0	4.938E-06	1.058E-06
59	393037	3870689	6.397E-07	8.266E-08	3.860E-06	0	1.596E-06	0	0	6.178E-06	1.324E-06
60	392822	3870689	7.656E-07	9.915E-08	4.630E-06	0	1.914E-06	0	0	7.409E-06	1.588E-06
61	392607	3870689	9.233E-07	1.191E-07	5.563E-06	0	2.300E-06	0	0	8.905E-06	1.908E-06
62	392392	3870689	1.089E-06	1.403E-07	6.551E-06	0	2.708E-06	0	0	1.049E-05	2.248E-06
63	392178	3870689	1.257E-06	1.637E-07	7.647E-06	0	3.160E-06	0	0	1.223E-05	2.621E-06
64	392178	3870521	1.158E-06	1.507E-07	7.038E-06	0	2.908E-06	0	0	1.125E-05	2.411E-06
65	392010	3870521	1.356E-06	1.765E-07	8.244E-06	0	3.408E-06	0	0	1.318E-05	2.824E-06

TABLE 5 (continued)
Golden Queen Mining

Receptor	X	Y	Inhale	Dermal	Soil	Water	Plants	Animal	Mother's Milk	70 Year Sum	15 Year Sum
66	391842	3870521	1.675E-06	2.176E-07	1.016E-05	0	4.204E-06	0	0	1.626E-05	3.484E-06
67	391643	3870520	2.262E-06	2.918E-07	1.362E-05	0	5.644E-06	0	0	2.182E-05	4.676E-06
68	391445	3870519	2.415E-06	3.113E-07	1.453E-05	0	6.025E-06	0	0	2.328E-05	4.989E-06
69	391247	3870518	2.418E-06	3.111E-07	1.452E-05	0	6.019E-06	0	0	2.327E-05	4.986E-06
70	391049	3870518	2.363E-06	3.033E-07	1.416E-05	0	5.869E-06	0	0	2.270E-05	4.864E-06
71	391044	3870310	1.541E-06	1.987E-07	9.278E-06	0	3.843E-06	0	0	1.486E-05	3.184E-06
72	391040	3870103	1.130E-06	1.463E-07	6.829E-06	0	2.826E-06	0	0	1.093E-05	2.342E-06
73	391036	3869895	8.526E-07	1.113E-07	5.198E-06	0	2.152E-06	0	0	8.314E-06	1.782E-06
74	391032	3869688	7.184E-07	9.301E-08	4.343E-06	0	1.796E-06	0	0	6.950E-06	1.489E-06
75	390827	3869681	6.574E-07	8.539E-08	3.987E-06	0	1.650E-06	0	0	6.380E-06	1.367E-06
76	390623	3869674	5.855E-07	7.657E-08	3.575E-06	0	1.480E-06	0	0	5.717E-06	1.225E-06
77	390419	3869667	5.057E-07	6.604E-08	3.083E-06	0	1.277E-06	0	0	4.932E-06	1.057E-06
78	390215	3869661	4.403E-07	5.668E-08	2.647E-06	0	1.095E-06	0	0	4.239E-06	9.084E-07
79	390214	3869865	5.099E-07	6.518E-08	3.043E-06	0	1.258E-06	0	0	4.876E-06	1.045E-06
80	390213	3870070	5.525E-07	7.169E-08	3.347E-06	0	1.387E-06	0	0	5.358E-06	1.148E-06
81	390212	3870275	6.444E-07	8.355E-08	3.900E-06	0	1.617E-06	0	0	6.245E-06	1.338E-06
82	390212	3870480	7.537E-07	9.770E-08	4.560E-06	0	1.891E-06	0	0	7.302E-06	1.565E-06
83	390211	3870677	8.289E-07	1.074E-07	5.012E-06	0	2.079E-06	0	0	8.027E-06	1.720E-06
84	390210	3870875	8.987E-07	1.163E-07	5.429E-06	0	2.252E-06	0	0	8.696E-06	1.863E-06
85	390209	3871072	9.562E-07	1.235E-07	5.765E-06	0	2.391E-06	0	0	9.236E-06	1.979E-06
86	390209	3871270	9.287E-07	1.200E-07	5.600E-06	0	2.323E-06	0	0	8.972E-06	1.923E-06
87	390039	3871272	4.943E-07	6.460E-08	3.016E-06	0	1.249E-06	0	0	4.824E-06	1.034E-06
88	389869	3871274	3.314E-07	4.335E-08	2.024E-06	0	8.372E-07	0	0	3.236E-06	6.934E-07
89	389700	3871276	2.424E-07	3.166E-08	1.479E-06	0	6.113E-07	0	0	2.364E-06	5.066E-07
90	389725	3871473	2.282E-07	2.978E-08	1.391E-06	0	5.748E-07	0	0	2.224E-06	4.766E-07
91	391600	3870100	1.072E-06	1.406E-07	6.564E-06	0	2.719E-06	0	0	1.050E-05	2.250E-06
92	391700	3870100	1.039E-06	1.363E-07	6.363E-06	0	2.636E-06	0	0	1.017E-05	2.179E-06
93	391800	3870100	1.000E-06	1.313E-07	6.132E-06	0	2.540E-06	0	0	9.803E-06	2.101E-06
94	391900	3870100	9.608E-07	1.262E-07	5.890E-06	0	2.439E-06	0	0	9.416E-06	2.018E-06
95	392000	3870100	9.218E-07	1.211E-07	5.654E-06	0	2.341E-06	0	0	9.038E-06	1.937E-06
96	392100	3870100	8.856E-07	1.164E-07	5.437E-06	0	2.251E-06	0	0	8.690E-06	1.862E-06
97	392200	3870100	8.532E-07	1.121E-07	5.234E-06	0	2.166E-06	0	0	8.365E-06	1.793E-06
98	392300	3870100	8.020E-07	1.057E-07	4.935E-06	0	2.042E-06	0	0	7.885E-06	1.690E-06
99	392400	3870100	7.640E-07	1.003E-07	4.684E-06	0	1.938E-06	0	0	7.486E-06	1.604E-06
100	392500	3870100	7.163E-07	9.411E-08	4.394E-06	0	1.817E-06	0	0	7.021E-06	1.505E-06
101	392600	3870100	6.813E-07	8.903E-08	4.157E-06	0	1.718E-06	0	0	6.645E-06	1.424E-06
102	392700	3870100	6.541E-07	8.480E-08	3.960E-06	0	1.636E-06	0	0	6.335E-06	1.358E-06
103	391600	3870200	1.224E-06	1.604E-07	7.489E-06	0	3.103E-06	0	0	1.198E-05	2.567E-06
104	391700	3870200	1.177E-06	1.543E-07	7.203E-06	0	2.984E-06	0	0	1.152E-05	2.469E-06
105	391800	3870200	1.121E-06	1.471E-07	6.865E-06	0	2.843E-06	0	0	1.098E-05	2.353E-06
106	391900	3870200	1.067E-06	1.400E-07	6.535E-06	0	2.706E-06	0	0	1.045E-05	2.239E-06
107	392000	3870200	1.016E-06	1.335E-07	6.231E-06	0	2.579E-06	0	0	9.959E-06	2.134E-06
108	392100	3870200	9.677E-07	1.271E-07	5.935E-06	0	2.456E-06	0	0	9.486E-06	2.033E-06
109	392200	3870200	9.183E-07	1.206E-07	5.631E-06	0	2.330E-06	0	0	9.000E-06	1.929E-06
110	392300	3870200	8.629E-07	1.132E-07	5.284E-06	0	2.185E-06	0	0	8.445E-06	1.810E-06
111	392400	3870200	8.060E-07	1.057E-07	4.935E-06	0	2.041E-06	0	0	7.888E-06	1.690E-06
112	392500	3870200	7.560E-07	9.893E-08	4.620E-06	0	1.910E-06	0	0	7.385E-06	1.583E-06
113	392600	3870200	7.093E-07	9.262E-08	4.325E-06	0	1.788E-06	0	0	6.915E-06	1.482E-06
114	392700	3870200	6.767E-07	8.772E-08	4.097E-06	0	1.692E-06	0	0	6.553E-06	1.404E-06
115	391600	3870300	1.428E-06	1.869E-07	8.723E-06	0	3.614E-06	0	0	1.395E-05	2.989E-06
116	391700	3870300	1.356E-06	1.776E-07	8.291E-06	0	3.435E-06	0	0	1.326E-05	2.841E-06
117	391800	3870300	1.270E-06	1.664E-07	7.771E-06	0	3.218E-06	0	0	1.243E-05	2.664E-06
118	391900	3870300	1.194E-06	1.565E-07	7.307E-06	0	3.025E-06	0	0	1.168E-05	2.503E-06
119	392000	3870300	1.135E-06	1.482E-07	6.919E-06	0	2.863E-06	0	0	1.107E-05	2.372E-06
120	392100	3870300	1.054E-06	1.382E-07	6.452E-06	0	2.669E-06	0	0	1.031E-05	2.209E-06
121	392200	3870300	9.806E-07	1.287E-07	6.009E-06	0	2.486E-06	0	0	9.604E-06	2.058E-06
122	392300	3870300	9.166E-07	1.199E-07	5.599E-06	0	2.315E-06	0	0	8.951E-06	1.918E-06
123	392400	3870300	8.528E-07	1.115E-07	5.205E-06	0	2.151E-06	0	0	8.320E-06	1.783E-06
124	392500	3870300	8.130E-07	1.054E-07	4.923E-06	0	2.033E-06	0	0	7.874E-06	1.687E-06
125	392600	3870300	7.549E-07	9.789E-08	4.572E-06	0	1.888E-06	0	0	7.313E-06	1.567E-06
126	392700	3870300	7.018E-07	9.098E-08	4.249E-06	0	1.755E-06	0	0	6.797E-06	1.457E-06
127	391600	3870400	1.716E-06	2.239E-07	1.045E-05	0	4.332E-06	0	0	1.672E-05	3.583E-06
128	391700	3870400	1.605E-06	2.096E-07	9.783E-06	0	4.053E-06	0	0	1.565E-05	3.354E-06
129	391800	3870400	1.464E-06	1.913E-07	8.931E-06	0	3.699E-06	0	0	1.429E-05	3.062E-06
130	391900	3870400	1.370E-06	1.783E-07	8.325E-06	0	3.444E-06	0	0	1.332E-05	2.854E-06

TABLE 5 (continued)
Golden Queen Mining

Receptor	X	Y	Inhale	Dermal	Soil	Water	Plants	Animal	Mother's Milk	70 Year Sum	15 Year Sum
131	392000	3870400	1.258E-06	1.637E-07	7.643E-06	0	3.160E-06	0	0	1.222E-05	2.619E-06
132	392100	3870400	1.155E-06	1.503E-07	7.021E-06	0	2.902E-06	0	0	1.123E-05	2.406E-06
133	392200	3870400	1.044E-06	1.367E-07	6.385E-06	0	2.640E-06	0	0	1.021E-05	2.188E-06
134	392300	3870400	9.812E-07	1.278E-07	5.966E-06	0	2.465E-06	0	0	9.540E-06	2.044E-06
135	392400	3870400	9.137E-07	1.187E-07	5.542E-06	0	2.290E-06	0	0	8.864E-06	1.899E-06
136	392500	3870400	8.518E-07	1.102E-07	5.146E-06	0	2.126E-06	0	0	8.234E-06	1.764E-06
137	392600	3870400	7.899E-07	1.022E-07	4.775E-06	0	1.972E-06	0	0	7.639E-06	1.637E-06
138	392700	3870400	7.338E-07	9.493E-08	4.433E-06	0	1.831E-06	0	0	7.093E-06	1.520E-06
139	391600	3870500	2.194E-06	2.835E-07	1.324E-05	0	5.486E-06	0	0	2.120E-05	4.543E-06
140	391700	3870500	2.023E-06	2.617E-07	1.222E-05	0	5.061E-06	0	0	1.957E-05	4.194E-06
141	391800	3870500	1.745E-06	2.265E-07	1.057E-05	0	4.378E-06	0	0	1.692E-05	3.626E-06
142	391900	3870500	1.514E-06	1.968E-07	9.187E-06	0	3.800E-06	0	0	1.470E-05	3.150E-06
143	392000	3870500	1.353E-06	1.760E-07	8.218E-06	0	3.398E-06	0	0	1.314E-05	2.816E-06
144	392100	3870500	1.224E-06	1.596E-07	7.454E-06	0	3.081E-06	0	0	1.192E-05	2.554E-06
145	392200	3870500	1.119E-06	1.459E-07	6.813E-06	0	2.815E-06	0	0	1.089E-05	2.334E-06
146	392300	3870500	1.036E-06	1.347E-07	6.289E-06	0	2.598E-06	0	0	1.006E-05	2.156E-06
147	392400	3870500	9.611E-07	1.246E-07	5.817E-06	0	2.403E-06	0	0	9.306E-06	1.994E-06
148	392500	3870500	8.918E-07	1.153E-07	5.386E-06	0	2.226E-06	0	0	8.619E-06	1.847E-06
149	392600	3870500	8.297E-07	1.071E-07	5.001E-06	0	2.066E-06	0	0	8.004E-06	1.715E-06
150	392700	3870500	7.688E-07	9.922E-08	4.634E-06	0	1.914E-06	0	0	7.416E-06	1.589E-06
151	392200	3870600	1.183E-06	1.540E-07	7.191E-06	0	2.971E-06	0	0	1.150E-05	2.464E-06
152	392300	3870600	1.097E-06	1.422E-07	6.641E-06	0	2.744E-06	0	0	1.062E-05	2.276E-06
153	392400	3870600	1.021E-06	1.318E-07	6.154E-06	0	2.543E-06	0	0	9.850E-06	2.111E-06
154	392500	3870600	9.371E-07	1.216E-07	5.679E-06	0	2.347E-06	0	0	9.085E-06	1.947E-06
155	392600	3870600	8.851E-07	1.136E-07	5.307E-06	0	2.193E-06	0	0	8.499E-06	1.821E-06
156	392700	3870600	8.114E-07	1.048E-07	4.892E-06	0	2.022E-06	0	0	7.830E-06	1.678E-06
157	391000	3869500	6.163E-07	7.971E-08	3.723E-06	0	1.538E-06	0	0	5.957E-06	1.277E-06
158	391250	3869500	6.298E-07	8.168E-08	3.814E-06	0	1.577E-06	0	0	6.102E-06	1.308E-06
159	391500	3869500	6.024E-07	7.927E-08	3.701E-06	0	1.532E-06	0	0	5.915E-06	1.268E-06
160	391750	3869500	5.843E-07	7.688E-08	3.589E-06	0	1.486E-06	0	0	5.736E-06	1.229E-06
161	392000	3869500	5.552E-07	7.302E-08	3.409E-06	0	1.412E-06	0	0	5.449E-06	1.168E-06
162	392250	3869500	5.288E-07	6.957E-08	3.248E-06	0	1.345E-06	0	0	5.191E-06	1.112E-06
163	392500	3869500	5.088E-07	6.697E-08	3.127E-06	0	1.294E-06	0	0	4.997E-06	1.071E-06
164	392750	3869500	4.750E-07	6.261E-08	2.923E-06	0	1.210E-06	0	0	4.671E-06	1.001E-06
165	393000	3869500	4.294E-07	5.669E-08	2.647E-06	0	1.095E-06	0	0	4.228E-06	9.060E-07
166	393250	3869500	3.801E-07	5.028E-08	2.348E-06	0	9.707E-07	0	0	3.749E-06	8.034E-07
167	393500	3869500	3.399E-07	4.501E-08	2.102E-06	0	8.689E-07	0	0	3.356E-06	7.191E-07
168	391250	3869750	7.538E-07	9.908E-08	4.626E-06	0	1.915E-06	0	0	7.394E-06	1.584E-06
169	391500	3869750	7.525E-07	9.900E-08	4.622E-06	0	1.914E-06	0	0	7.387E-06	1.583E-06
170	391750	3869750	7.192E-07	9.451E-08	4.412E-06	0	1.828E-06	0	0	7.054E-06	1.512E-06
171	392000	3869750	6.759E-07	8.887E-08	4.149E-06	0	1.718E-06	0	0	6.632E-06	1.421E-06
172	392250	3869750	6.365E-07	8.377E-08	3.911E-06	0	1.619E-06	0	0	6.250E-06	1.339E-06
173	392500	3869750	5.957E-07	7.843E-08	3.662E-06	0	1.516E-06	0	0	5.852E-06	1.254E-06
174	392750	3869750	5.338E-07	7.026E-08	3.281E-06	0	1.357E-06	0	0	5.242E-06	1.123E-06
175	393000	3869750	4.675E-07	6.148E-08	2.871E-06	0	1.187E-06	0	0	4.587E-06	9.829E-07
176	393250	3869750	4.037E-07	5.335E-08	2.492E-06	0	1.030E-06	0	0	3.979E-06	8.526E-07
177	393500	3869750	3.576E-07	4.726E-08	2.207E-06	0	9.123E-07	0	0	3.524E-06	7.551E-07
178	391250	3870000	1.023E-06	1.328E-07	6.202E-06	0	2.567E-06	0	0	9.925E-06	2.127E-06
179	391500	3870000	9.765E-07	1.281E-07	5.980E-06	0	2.477E-06	0	0	9.562E-06	2.049E-06
180	391750	3870000	9.148E-07	1.201E-07	5.609E-06	0	2.323E-06	0	0	8.967E-06	1.922E-06
181	392000	3870000	8.388E-07	1.103E-07	5.148E-06	0	2.132E-06	0	0	8.229E-06	1.763E-06
182	392250	3870000	7.797E-07	1.022E-07	4.771E-06	0	1.974E-06	0	0	7.627E-06	1.634E-06
183	392500	3870000	6.830E-07	8.982E-08	4.194E-06	0	1.735E-06	0	0	6.702E-06	1.436E-06
184	392750	3870000	6.108E-07	7.924E-08	3.701E-06	0	1.528E-06	0	0	5.919E-06	1.268E-06
185	393000	3870000	5.113E-07	6.668E-08	3.114E-06	0	1.286E-06	0	0	4.978E-06	1.067E-06
186	393250	3870000	4.331E-07	5.693E-08	2.659E-06	0	1.099E-06	0	0	4.248E-06	9.103E-07
187	393500	3870000	3.790E-07	4.991E-08	2.331E-06	0	9.637E-07	0	0	3.724E-06	7.980E-07
188	391250	3870250	1.432E-06	1.855E-07	8.662E-06	0	3.586E-06	0	0	1.387E-05	2.972E-06
189	391500	3870250	1.358E-06	1.776E-07	8.290E-06	0	3.435E-06	0	0	1.326E-05	2.841E-06
190	391750	3870250	1.227E-06	1.608E-07	7.508E-06	0	3.110E-06	0	0	1.201E-05	2.574E-06
191	392000	3870250	1.073E-06	1.406E-07	6.564E-06	0	2.717E-06	0	0	1.049E-05	2.248E-06
192	392250	3870250	9.183E-07	1.205E-07	5.625E-06	0	2.327E-06	0	0	8.991E-06	1.927E-06
193	392500	3870250	7.791E-07	1.017E-07	4.747E-06	0	1.962E-06	0	0	7.590E-06	1.626E-06
194	392750	3870250	6.656E-07	8.625E-08	4.028E-06	0	1.663E-06	0	0	6.443E-06	1.381E-06
195	393000	3870250	5.501E-07	7.177E-08	3.352E-06	0	1.385E-06	0	0	5.359E-06	1.148E-06

TABLE 5 (continued)
Golden Queen Mining

Receptor	X	Y	Inhale	Dermal	Soil	Water	Plants	Animal	Mother's Milk	70 Year Sum	15 Year Sum
196	393250	3870250	4.773E-07	6.201E-08	2.896E-06	0	1.197E-06	0	0	4.632E-06	9.926E-07
197	393500	3870250	3.985E-07	5.222E-08	2.438E-06	0	1.009E-06	0	0	3.898E-06	8.353E-07
198	391250	3870500	2.308E-06	2.973E-07	1.388E-05	0	5.753E-06	0	0	2.224E-05	4.766E-06
199	391500	3870500	2.252E-06	2.914E-07	1.360E-05	0	5.639E-06	0	0	2.178E-05	4.667E-06
200	391750	3870500	1.882E-06	2.439E-07	1.139E-05	0	4.716E-06	0	0	1.823E-05	3.906E-06
201	392250	3870500	1.078E-06	1.403E-07	6.552E-06	0	2.707E-06	0	0	1.048E-05	2.246E-06
202	392750	3870500	7.411E-07	9.568E-08	4.468E-06	0	1.846E-06	0	0	7.151E-06	1.532E-06
203	393000	3870500	6.121E-07	7.925E-08	3.701E-06	0	1.529E-06	0	0	5.921E-06	1.269E-06
204	393250	3870500	4.926E-07	6.444E-08	3.009E-06	0	1.245E-06	0	0	4.811E-06	1.031E-06
205	393500	3870500	3.993E-07	5.230E-08	2.442E-06	0	1.011E-06	0	0	3.905E-06	8.368E-07
206	393500	3870750	3.847E-07	5.034E-08	2.350E-06	0	9.732E-07	0	0	3.758E-06	8.053E-07
207	393500	3871000	3.675E-07	4.740E-08	2.213E-06	0	9.152E-07	0	0	3.543E-06	7.592E-07
208	386000	3867500	3.684E-08	4.710E-09	2.200E-07	0	9.088E-08	0	0	3.524E-07	7.551E-08
209	386500	3867500	4.218E-08	5.408E-09	2.525E-07	0	1.044E-07	0	0	4.045E-07	8.668E-08
210	387000	3867500	4.954E-08	6.379E-09	2.979E-07	0	1.231E-07	0	0	4.769E-07	1.022E-07
211	387500	3867500	5.838E-08	7.536E-09	3.519E-07	0	1.455E-07	0	0	5.633E-07	1.207E-07
212	388000	3867500	6.996E-08	9.054E-09	4.228E-07	0	1.748E-07	0	0	6.766E-07	1.450E-07
213	388500	3867500	8.734E-08	1.136E-08	5.307E-07	0	2.194E-07	0	0	8.488E-07	1.819E-07
214	389000	3867500	1.112E-07	1.454E-08	6.789E-07	0	2.808E-07	0	0	1.085E-06	2.325E-07
215	389500	3867500	1.431E-07	1.878E-08	8.771E-07	0	3.629E-07	0	0	1.402E-06	3.004E-07
216	390000	3867500	1.706E-07	2.248E-08	1.049E-06	0	4.341E-07	0	0	1.676E-06	3.591E-07
217	390500	3867500	1.965E-07	2.590E-08	1.209E-06	0	5.004E-07	0	0	1.932E-06	4.140E-07
218	391000	3867500	2.103E-07	2.773E-08	1.295E-06	0	5.359E-07	0	0	2.069E-06	4.434E-07
219	391500	3867500	2.171E-07	2.867E-08	1.339E-06	0	5.540E-07	0	0	2.139E-06	4.584E-07
220	392000	3867500	2.037E-07	2.698E-08	1.260E-06	0	5.212E-07	0	0	2.012E-06	4.311E-07
221	392500	3867500	1.871E-07	2.476E-08	1.156E-06	0	4.784E-07	0	0	1.846E-06	3.956E-07
222	393000	3867500	1.732E-07	2.282E-08	1.065E-06	0	4.411E-07	0	0	1.702E-06	3.647E-07
223	393500	3867500	1.723E-07	2.266E-08	1.058E-06	0	4.381E-07	0	0	1.691E-06	3.624E-07
224	394000	3867500	1.723E-07	2.267E-08	1.058E-06	0	4.380E-07	0	0	1.691E-06	3.624E-07
225	394500	3867500	1.689E-07	2.226E-08	1.039E-06	0	4.298E-07	0	0	1.660E-06	3.557E-07
226	395000	3867500	1.601E-07	2.111E-08	9.858E-07	0	4.076E-07	0	0	1.575E-06	3.375E-07
227	386000	3868000	3.627E-08	4.633E-09	2.164E-07	0	8.934E-08	0	0	3.466E-07	7.427E-08
228	386500	3868000	4.278E-08	5.473E-09	2.556E-07	0	1.056E-07	0	0	4.095E-07	8.775E-08
229	387000	3868000	5.026E-08	6.449E-09	3.012E-07	0	1.245E-07	0	0	4.824E-07	1.034E-07
230	387500	3868000	6.002E-08	7.735E-09	3.612E-07	0	1.493E-07	0	0	5.783E-07	1.239E-07
231	388000	3868000	7.258E-08	9.385E-09	4.383E-07	0	1.812E-07	0	0	7.015E-07	1.503E-07
232	388500	3868000	9.022E-08	1.171E-08	5.469E-07	0	2.262E-07	0	0	8.750E-07	1.875E-07
233	389000	3868000	1.175E-07	1.533E-08	7.159E-07	0	2.961E-07	0	0	1.145E-06	2.454E-07
234	389500	3868000	1.555E-07	2.038E-08	9.516E-07	0	3.937E-07	0	0	1.521E-06	3.259E-07
235	390000	3868000	1.959E-07	2.577E-08	1.203E-06	0	4.979E-07	0	0	1.923E-06	4.121E-07
236	390500	3868000	2.333E-07	3.075E-08	1.436E-06	0	5.941E-07	0	0	2.294E-06	4.916E-07
237	391000	3868000	2.558E-07	3.373E-08	1.575E-06	0	6.518E-07	0	0	2.516E-06	5.391E-07
238	391500	3868000	2.603E-07	3.439E-08	1.606E-06	0	6.645E-07	0	0	2.565E-06	5.496E-07
239	392000	3868000	2.419E-07	3.203E-08	1.496E-06	0	6.188E-07	0	0	2.389E-06	5.119E-07
240	392500	3868000	2.224E-07	2.936E-08	1.371E-06	0	5.674E-07	0	0	2.190E-06	4.693E-07
241	393000	3868000	2.139E-07	2.813E-08	1.313E-06	0	5.439E-07	0	0	2.099E-06	4.498E-07
242	393500	3868000	2.130E-07	2.802E-08	1.308E-06	0	5.416E-07	0	0	2.091E-06	4.481E-07
243	394000	3868000	2.050E-07	2.703E-08	1.262E-06	0	5.220E-07	0	0	2.016E-06	4.320E-07
244	394500	3868000	1.916E-07	2.529E-08	1.181E-06	0	4.883E-07	0	0	1.886E-06	4.041E-07
245	395000	3868000	1.713E-07	2.259E-08	1.055E-06	0	4.362E-07	0	0	1.685E-06	3.611E-07
246	386000	3868500	3.348E-08	4.250E-09	1.985E-07	0	8.196E-08	0	0	3.182E-07	6.819E-08
247	386500	3868500	4.120E-08	5.256E-09	2.455E-07	0	1.014E-07	0	0	3.934E-07	8.430E-08
248	387000	3868500	5.003E-08	6.408E-09	2.993E-07	0	1.236E-07	0	0	4.793E-07	1.027E-07
249	387500	3868500	6.095E-08	7.843E-09	3.662E-07	0	1.514E-07	0	0	5.864E-07	1.257E-07
250	388000	3868500	7.503E-08	9.682E-09	4.521E-07	0	1.869E-07	0	0	7.237E-07	1.551E-07
251	388500	3868500	9.430E-08	1.223E-08	5.710E-07	0	2.361E-07	0	0	9.136E-07	1.958E-07
252	389000	3868500	1.234E-07	1.608E-08	7.508E-07	0	3.106E-07	0	0	1.201E-06	2.574E-07
253	389500	3868500	1.700E-07	2.226E-08	1.039E-06	0	4.300E-07	0	0	1.661E-06	3.559E-07
254	390000	3868500	2.272E-07	2.984E-08	1.393E-06	0	5.766E-07	0	0	2.227E-06	4.772E-07
255	390500	3868500	2.837E-07	3.737E-08	1.745E-06	0	7.222E-07	0	0	2.788E-06	5.974E-07
256	391000	3868500	3.198E-07	4.217E-08	1.969E-06	0	8.149E-07	0	0	3.146E-06	6.741E-07
257	391500	3868500	3.204E-07	4.234E-08	1.977E-06	0	8.181E-07	0	0	3.158E-06	6.767E-07
258	392000	3868500	3.006E-07	3.975E-08	1.856E-06	0	7.681E-07	0	0	2.964E-06	6.351E-07
259	392500	3868500	2.801E-07	3.688E-08	1.722E-06	0	7.129E-07	0	0	2.752E-06	5.897E-07
260	393000	3868500	2.745E-07	3.609E-08	1.685E-06	0	6.977E-07	0	0	2.693E-06	5.771E-07

TABLE 5 (continued)
Golden Queen Mining

Receptor	X	Y	Inhale	Dermal	Soil	Water	Plants	Animal	Mother's Milk	70 Year Sum	15 Year Sum
261	393500	3868500	2.590E-07	3.413E-08	1.594E-06	0	6.594E-07	0	0	2.547E-06	5.458E-07
262	394000	3868500	2.356E-07	3.113E-08	1.454E-06	0	6.010E-07	0	0	2.322E-06	4.976E-07
263	394500	3868500	2.088E-07	2.757E-08	1.287E-06	0	5.323E-07	0	0	2.056E-06	4.406E-07
264	395000	3868500	1.764E-07	2.326E-08	1.086E-06	0	4.491E-07	0	0	1.735E-06	3.718E-07
265	386000	3869000	3.377E-08	4.247E-09	1.983E-07	0	8.190E-08	0	0	3.182E-07	6.819E-08
266	386500	3869000	3.914E-08	4.954E-09	2.314E-07	0	9.555E-08	0	0	3.710E-07	7.950E-08
267	387000	3869000	4.791E-08	6.107E-09	2.852E-07	0	1.178E-07	0	0	4.570E-07	9.793E-08
268	387500	3869000	5.964E-08	7.642E-09	3.569E-07	0	1.474E-07	0	0	5.716E-07	1.225E-07
269	388000	3869000	7.590E-08	9.791E-09	4.572E-07	0	1.890E-07	0	0	7.319E-07	1.568E-07
270	388500	3869000	9.760E-08	1.264E-08	5.901E-07	0	2.440E-07	0	0	9.443E-07	2.024E-07
271	389000	3869000	1.311E-07	1.705E-08	7.964E-07	0	3.294E-07	0	0	1.274E-06	2.730E-07
272	389500	3869000	1.847E-07	2.412E-08	1.126E-06	0	4.661E-07	0	0	1.801E-06	3.859E-07
273	390000	3869000	2.688E-07	3.521E-08	1.644E-06	0	6.805E-07	0	0	2.629E-06	5.634E-07
274	390500	3869000	3.647E-07	4.761E-08	2.223E-06	0	9.197E-07	0	0	3.555E-06	7.618E-07
275	391000	3869000	4.192E-07	5.512E-08	2.574E-06	0	1.065E-06	0	0	4.113E-06	8.814E-07
276	391500	3869000	4.169E-07	5.506E-08	2.571E-06	0	1.064E-06	0	0	4.107E-06	8.801E-07
277	392000	3869000	3.939E-07	5.193E-08	2.424E-06	0	1.004E-06	0	0	3.874E-06	8.301E-07
278	392500	3869000	3.705E-07	4.873E-08	2.275E-06	0	9.421E-07	0	0	3.636E-06	7.791E-07
279	393000	3869000	3.499E-07	4.608E-08	2.152E-06	0	8.906E-07	0	0	3.439E-06	7.369E-07
280	393500	3869000	3.050E-07	4.033E-08	1.883E-06	0	7.788E-07	0	0	3.007E-06	6.444E-07
281	394000	3869000	2.606E-07	3.446E-08	1.609E-06	0	6.654E-07	0	0	2.569E-06	5.505E-07
282	394500	3869000	2.169E-07	2.861E-08	1.336E-06	0	5.525E-07	0	0	2.134E-06	4.573E-07
283	395000	3869000	1.728E-07	2.277E-08	1.063E-06	0	4.399E-07	0	0	1.698E-06	3.639E-07
284	386000	3869500	3.448E-08	4.370E-09	2.041E-07	0	8.425E-08	0	0	3.272E-07	7.011E-08
285	386500	3869500	4.025E-08	5.082E-09	2.374E-07	0	9.799E-08	0	0	3.807E-07	8.158E-08
286	387000	3869500	4.757E-08	6.023E-09	2.813E-07	0	1.162E-07	0	0	4.511E-07	9.666E-08
287	387500	3869500	5.871E-08	7.488E-09	3.497E-07	0	1.445E-07	0	0	5.604E-07	1.201E-07
288	388000	3869500	7.432E-08	9.534E-09	4.452E-07	0	1.840E-07	0	0	7.131E-07	1.528E-07
289	388500	3869500	9.847E-08	1.274E-08	5.950E-07	0	2.459E-07	0	0	9.521E-07	2.040E-07
290	389000	3869500	1.364E-07	1.773E-08	8.279E-07	0	3.424E-07	0	0	1.324E-06	2.837E-07
291	389500	3869500	2.025E-07	2.644E-08	1.234E-06	0	5.108E-07	0	0	1.974E-06	4.230E-07
292	390000	3869500	3.540E-07	4.486E-08	2.095E-06	0	8.657E-07	0	0	3.360E-06	7.200E-07
293	390500	3869500	4.750E-07	6.229E-08	2.908E-06	0	1.204E-06	0	0	4.649E-06	9.962E-07
294	394000	3869500	2.761E-07	3.647E-08	1.703E-06	0	7.042E-07	0	0	2.720E-06	5.829E-07
295	394500	3869500	2.124E-07	2.800E-08	1.308E-06	0	5.409E-07	0	0	2.089E-06	4.476E-07
296	395000	3869500	1.588E-07	2.093E-08	9.775E-07	0	4.044E-07	0	0	1.562E-06	3.347E-07
297	386000	3870000	3.130E-08	3.984E-09	1.861E-07	0	7.677E-08	0	0	2.982E-07	6.390E-08
298	386500	3870000	3.790E-08	4.822E-09	2.252E-07	0	9.292E-08	0	0	3.608E-07	7.731E-08
299	387000	3870000	4.628E-08	5.881E-09	2.747E-07	0	1.133E-07	0	0	4.402E-07	9.433E-08
300	387500	3870000	5.621E-08	7.164E-09	3.346E-07	0	1.381E-07	0	0	5.361E-07	1.149E-07
301	388000	3870000	7.206E-08	9.235E-09	4.313E-07	0	1.782E-07	0	0	6.908E-07	1.480E-07
302	388500	3870000	9.755E-08	1.257E-08	5.869E-07	0	2.426E-07	0	0	9.396E-07	2.013E-07
303	389000	3870000	1.400E-07	1.818E-08	8.491E-07	0	3.511E-07	0	0	1.358E-06	2.910E-07
304	389500	3870000	2.187E-07	2.854E-08	1.333E-06	0	5.515E-07	0	0	2.132E-06	4.569E-07
305	390000	3870000	3.962E-07	5.155E-08	2.407E-06	0	9.967E-07	0	0	3.851E-06	8.252E-07
306	394000	3870000	2.767E-07	3.644E-08	1.701E-06	0	7.040E-07	0	0	2.718E-06	5.824E-07
307	394500	3870000	1.977E-07	2.604E-08	1.216E-06	0	5.032E-07	0	0	1.943E-06	4.164E-07
308	395000	3870000	1.464E-07	1.929E-08	9.005E-07	0	3.727E-07	0	0	1.439E-06	3.084E-07
309	386000	3870500	2.598E-08	3.249E-09	1.518E-07	0	6.256E-08	0	0	2.436E-07	5.220E-08
310	386500	3870500	3.199E-08	4.036E-09	1.885E-07	0	7.776E-08	0	0	3.023E-07	6.478E-08
311	387000	3870500	4.022E-08	5.106E-09	2.385E-07	0	9.840E-08	0	0	3.822E-07	8.190E-08
312	387500	3870500	5.128E-08	6.551E-09	3.060E-07	0	1.263E-07	0	0	4.901E-07	1.050E-07
313	388000	3870500	6.620E-08	8.489E-09	3.965E-07	0	1.637E-07	0	0	6.349E-07	1.361E-07
314	388500	3870500	9.074E-08	1.171E-08	5.468E-07	0	2.258E-07	0	0	8.750E-07	1.875E-07
315	389000	3870500	1.331E-07	1.728E-08	8.072E-07	0	3.336E-07	0	0	1.291E-06	2.766E-07
316	389500	3870500	2.193E-07	2.864E-08	1.338E-06	0	5.532E-07	0	0	2.139E-06	4.584E-07
317	390000	3870500	4.708E-07	6.138E-08	2.866E-06	0	1.187E-06	0	0	4.585E-06	9.825E-07
318	394000	3870500	2.530E-07	3.324E-08	1.552E-06	0	6.425E-07	0	0	2.481E-06	5.316E-07
319	394500	3870500	1.728E-07	2.276E-08	1.063E-06	0	4.397E-07	0	0	1.698E-06	3.639E-07
320	395000	3870500	1.291E-07	1.704E-08	7.957E-07	0	3.292E-07	0	0	1.271E-06	2.724E-07
321	386000	3871000	2.255E-08	2.807E-09	1.311E-07	0	5.403E-08	0	0	2.105E-07	4.511E-08
322	386500	3871000	2.718E-08	3.378E-09	1.578E-07	0	6.500E-08	0	0	2.534E-07	5.430E-08
323	387000	3871000	3.243E-08	4.063E-09	1.898E-07	0	7.822E-08	0	0	3.045E-07	6.525E-08
324	387500	3871000	4.055E-08	5.137E-09	2.400E-07	0	9.898E-08	0	0	3.847E-07	8.244E-08
325	388000	3871000	5.450E-08	6.964E-09	3.253E-07	0	1.342E-07	0	0	5.210E-07	1.116E-07

TABLE 5 (continued)
Golden Queen Mining

Receptor	X	Y	Inhale	Dermal	Soil	Water	Plants	Animal	Mother's Milk	70 Year Sum	15 Year Sum
326	388500	3871000	7.662E-08	9.858E-09	4.605E-07	0	1.901E-07	0	0	7.371E-07	1.580E-07
327	389000	3871000	1.137E-07	1.477E-08	6.899E-07	0	2.849E-07	0	0	1.103E-06	2.364E-07
328	389500	3871000	1.957E-07	2.555E-08	1.193E-06	0	4.932E-07	0	0	1.907E-06	4.086E-07
329	390000	3871000	4.742E-07	6.198E-08	2.894E-06	0	1.198E-06	0	0	4.628E-06	9.917E-07
330	394000	3871000	2.167E-07	2.856E-08	1.334E-06	0	5.520E-07	0	0	2.131E-06	4.566E-07
331	394500	3871000	1.580E-07	2.087E-08	9.744E-07	0	4.032E-07	0	0	1.556E-06	3.334E-07
332	395000	3871000	1.250E-07	1.652E-08	7.716E-07	0	3.192E-07	0	0	1.232E-06	2.640E-07
333	386000	3871500	2.049E-08	2.591E-09	1.210E-07	0	4.993E-08	0	0	1.940E-07	4.157E-08
334	386500	3871500	2.365E-08	3.004E-09	1.403E-07	0	5.790E-08	0	0	2.249E-07	4.819E-08
335	387000	3871500	2.817E-08	3.576E-09	1.670E-07	0	6.891E-08	0	0	2.677E-07	5.736E-08
336	387500	3871500	3.477E-08	4.414E-09	2.062E-07	0	8.504E-08	0	0	3.304E-07	7.080E-08
337	388000	3871500	4.471E-08	5.667E-09	2.647E-07	0	1.092E-07	0	0	4.243E-07	9.092E-08
338	388500	3871500	5.957E-08	7.592E-09	3.546E-07	0	1.463E-07	0	0	5.681E-07	1.217E-07
339	389000	3871500	9.113E-08	1.172E-08	5.475E-07	0	2.259E-07	0	0	8.762E-07	1.878E-07
340	389500	3871500	1.616E-07	2.099E-08	9.801E-07	0	4.048E-07	0	0	1.567E-06	3.358E-07
341	393000	3871500	5.852E-07	7.609E-08	3.552E-06	0	1.472E-06	0	0	5.685E-06	1.218E-06
342	393500	3871500	2.853E-07	3.759E-08	1.755E-06	0	7.265E-07	0	0	2.804E-06	6.009E-07
343	394000	3871500	1.929E-07	2.549E-08	1.190E-06	0	4.926E-07	0	0	1.901E-06	4.074E-07
344	394500	3871500	1.442E-07	1.907E-08	8.903E-07	0	3.683E-07	0	0	1.422E-06	3.047E-07
345	395000	3871500	1.123E-07	1.486E-08	6.939E-07	0	2.870E-07	0	0	1.108E-06	2.374E-07
346	386000	3872000	1.906E-08	2.375E-09	1.110E-07	0	4.569E-08	0	0	1.781E-07	3.816E-08
347	386500	3872000	2.112E-08	2.655E-09	1.240E-07	0	5.113E-08	0	0	1.989E-07	4.262E-08
348	387000	3872000	2.446E-08	3.101E-09	1.449E-07	0	5.975E-08	0	0	2.322E-07	4.976E-08
349	387500	3872000	2.926E-08	3.730E-09	1.742E-07	0	7.190E-08	0	0	2.791E-07	5.981E-08
350	388000	3872000	3.665E-08	4.688E-09	2.190E-07	0	9.042E-08	0	0	3.508E-07	7.517E-08
351	388500	3872000	4.875E-08	6.263E-09	2.925E-07	0	1.208E-07	0	0	4.683E-07	1.004E-07
352	389000	3872000	7.248E-08	9.355E-09	4.369E-07	0	1.804E-07	0	0	6.991E-07	1.498E-07
353	389500	3872000	1.215E-07	1.576E-08	7.359E-07	0	3.037E-07	0	0	1.177E-06	2.522E-07
354	393000	3872000	4.064E-07	5.320E-08	2.483E-06	0	1.029E-06	0	0	3.972E-06	8.511E-07
355	393500	3872000	2.277E-07	3.000E-08	1.401E-06	0	5.799E-07	0	0	2.239E-06	4.798E-07
356	394000	3872000	1.567E-07	2.070E-08	9.667E-07	0	4.000E-07	0	0	1.544E-06	3.309E-07
357	394500	3872000	1.190E-07	1.574E-08	7.349E-07	0	3.040E-07	0	0	1.174E-06	2.516E-07
358	395000	3872000	9.635E-08	1.274E-08	5.951E-07	0	2.462E-07	0	0	9.504E-07	2.037E-07
359	386000	3872500	1.680E-08	2.089E-09	9.762E-08	0	4.021E-08	0	0	1.567E-07	3.358E-08
360	386500	3872500	1.948E-08	2.421E-09	1.131E-07	0	4.660E-08	0	0	1.816E-07	3.891E-08
361	387000	3872500	2.174E-08	2.748E-09	1.284E-07	0	5.297E-08	0	0	2.059E-07	4.412E-08
362	387500	3872500	2.604E-08	3.319E-09	1.550E-07	0	6.400E-08	0	0	2.484E-07	5.323E-08
363	388000	3872500	3.227E-08	4.142E-09	1.934E-07	0	7.990E-08	0	0	3.097E-07	6.636E-08
364	388500	3872500	4.165E-08	5.388E-09	2.516E-07	0	1.040E-07	0	0	4.026E-07	8.627E-08
365	389000	3872500	5.612E-08	7.310E-09	3.414E-07	0	1.411E-07	0	0	5.459E-07	1.170E-07
366	389500	3872500	8.793E-08	1.151E-08	5.375E-07	0	2.221E-07	0	0	8.590E-07	1.841E-07
367	390000	3872500	1.961E-07	2.577E-08	1.203E-06	0	4.974E-07	0	0	1.922E-06	4.119E-07
368	392000	3872500	6.672E-07	8.892E-08	4.153E-06	0	1.716E-06	0	0	6.625E-06	1.420E-06
369	392500	3872500	5.109E-07	6.714E-08	3.134E-06	0	1.298E-06	0	0	5.010E-06	1.074E-06
370	393000	3872500	2.997E-07	3.942E-08	1.840E-06	0	7.622E-07	0	0	2.941E-06	6.302E-07
371	393500	3872500	1.903E-07	2.508E-08	1.171E-06	0	4.847E-07	0	0	1.871E-06	4.009E-07
372	394000	3872500	1.336E-07	1.763E-08	8.234E-07	0	3.408E-07	0	0	1.315E-06	2.818E-07
373	394500	3872500	1.010E-07	1.334E-08	6.231E-07	0	2.578E-07	0	0	9.952E-07	2.133E-07
374	395000	3872500	8.171E-08	1.080E-08	5.044E-07	0	2.087E-07	0	0	8.056E-07	1.726E-07
375	386000	3873000	1.601E-08	2.004E-09	9.363E-08	0	3.859E-08	0	0	1.502E-07	3.219E-08
376	386500	3873000	1.859E-08	2.332E-09	1.090E-07	0	4.491E-08	0	0	1.748E-07	3.746E-08
377	387000	3873000	2.189E-08	2.749E-09	1.284E-07	0	5.295E-08	0	0	2.060E-07	4.414E-08
378	387500	3873000	2.480E-08	3.180E-09	1.485E-07	0	6.135E-08	0	0	2.378E-07	5.096E-08
379	388000	3873000	3.098E-08	4.010E-09	1.873E-07	0	7.737E-08	0	0	2.997E-07	6.422E-08
380	388500	3873000	3.947E-08	5.138E-09	2.399E-07	0	9.911E-08	0	0	3.836E-07	8.220E-08
381	389000	3873000	5.295E-08	6.904E-09	3.224E-07	0	1.332E-07	0	0	5.155E-07	1.105E-07
382	389500	3873000	7.618E-08	9.933E-09	4.639E-07	0	1.917E-07	0	0	7.417E-07	1.589E-07
383	390000	3873000	1.477E-07	1.937E-08	9.044E-07	0	3.739E-07	0	0	1.445E-06	3.096E-07
384	390500	3873000	2.981E-07	3.947E-08	1.844E-06	0	7.614E-07	0	0	2.943E-06	6.306E-07
385	391000	3873000	3.769E-07	5.013E-08	2.342E-06	0	9.667E-07	0	0	3.736E-06	8.006E-07
386	391500	3873000	4.143E-07	5.533E-08	2.584E-06	0	1.067E-06	0	0	4.121E-06	8.831E-07
387	392000	3873000	3.904E-07	5.200E-08	2.429E-06	0	1.004E-06	0	0	3.875E-06	8.304E-07
388	392500	3873000	3.222E-07	4.261E-08	1.990E-06	0	8.231E-07	0	0	3.178E-06	6.810E-07
389	393000	3873000	2.377E-07	3.139E-08	1.465E-06	0	6.065E-07	0	0	2.341E-06	5.016E-07
390	393500	3873000	1.682E-07	2.222E-08	1.037E-06	0	4.293E-07	0	0	1.657E-06	3.551E-07

Receptor	X	Y	Inhale	Dermal	Soil	Water	Plants	Animal	Mother's Milk	70 Year Sum	15 Year Sum
391	394000	3873000	1.247E-07	1.646E-08	7.686E-07	0	3.181E-07	0	0	1.228E-06	2.631E-07
392	394500	3873000	9.542E-08	1.259E-08	5.878E-07	0	2.433E-07	0	0	9.391E-07	2.012E-07
393	395000	3873000	7.695E-08	1.016E-08	4.744E-07	0	1.963E-07	0	0	7.578E-07	1.624E-07
394	386000	3873500	1.594E-08	2.007E-09	9.376E-08	0	3.866E-08	0	0	1.504E-07	3.223E-08
395	386500	3873500	1.913E-08	2.424E-09	1.132E-07	0	4.669E-08	0	0	1.814E-07	3.887E-08
396	387000	3873500	2.331E-08	2.954E-09	1.380E-07	0	5.688E-08	0	0	2.211E-07	4.738E-08
397	387500	3873500	2.664E-08	3.408E-09	1.592E-07	0	6.568E-08	0	0	2.549E-07	5.462E-08
398	388000	3873500	3.029E-08	3.899E-09	1.821E-07	0	7.517E-08	0	0	2.915E-07	6.246E-08
399	388500	3873500	3.553E-08	4.602E-09	2.149E-07	0	8.875E-08	0	0	3.438E-07	7.367E-08
400	389000	3873500	4.511E-08	5.853E-09	2.733E-07	0	1.130E-07	0	0	4.373E-07	9.371E-08
401	389500	3873500	6.667E-08	8.672E-09	4.050E-07	0	1.675E-07	0	0	6.478E-07	1.388E-07
402	390000	3873500	1.189E-07	1.552E-08	7.247E-07	0	2.996E-07	0	0	1.159E-06	2.484E-07
403	390500	3873500	1.938E-07	2.551E-08	1.191E-06	0	4.921E-07	0	0	1.902E-06	4.076E-07
404	391000	3873500	2.522E-07	3.342E-08	1.561E-06	0	6.446E-07	0	0	2.491E-06	5.338E-07
405	391500	3873500	2.802E-07	3.715E-08	1.735E-06	0	7.164E-07	0	0	2.769E-06	5.934E-07
406	392000	3873500	2.707E-07	3.593E-08	1.678E-06	0	6.933E-07	0	0	2.678E-06	5.739E-07
407	392500	3873500	2.348E-07	3.109E-08	1.452E-06	0	6.002E-07	0	0	2.318E-06	4.967E-07
408	393000	3873500	1.878E-07	2.479E-08	1.157E-06	0	4.789E-07	0	0	1.848E-06	3.960E-07
409	393500	3873500	1.469E-07	1.942E-08	9.067E-07	0	3.751E-07	0	0	1.448E-06	3.103E-07
410	394000	3873500	1.166E-07	1.540E-08	7.192E-07	0	2.976E-07	0	0	1.149E-06	2.462E-07
411	394500	3873500	9.324E-08	1.231E-08	5.750E-07	0	2.379E-07	0	0	9.184E-07	1.968E-07
412	395000	3873500	7.434E-08	9.819E-09	4.585E-07	0	1.897E-07	0	0	7.324E-07	1.569E-07
413	388000	3874000	2.657E-08	3.401E-09	1.588E-07	0	6.553E-08	0	0	2.543E-07	5.449E-08
414	388000	3874500	2.301E-08	2.950E-09	1.378E-07	0	5.688E-08	0	0	2.206E-07	4.727E-08
415	388000	3875000	2.147E-08	2.726E-09	1.273E-07	0	5.259E-08	0	0	2.041E-07	4.374E-08
416	388500	3874000	3.098E-08	3.998E-09	1.867E-07	0	7.714E-08	0	0	2.988E-07	6.403E-08
417	388500	3874500	2.836E-08	3.629E-09	1.694E-07	0	7.005E-08	0	0	2.714E-07	5.816E-08
418	388500	3875000	2.938E-08	3.776E-09	1.763E-07	0	7.287E-08	0	0	2.823E-07	6.049E-08
419	389000	3874000	4.003E-08	5.166E-09	2.412E-07	0	9.976E-08	0	0	3.862E-07	8.276E-08
420	389000	3874500	4.123E-08	5.344E-09	2.495E-07	0	1.031E-07	0	0	3.992E-07	8.554E-08
421	389000	3875000	3.918E-08	5.051E-09	2.359E-07	0	9.742E-08	0	0	3.776E-07	8.091E-08
422	389500	3874000	6.186E-08	8.049E-09	3.759E-07	0	1.554E-07	0	0	6.012E-07	1.288E-07
423	389500	3874500	5.705E-08	7.387E-09	3.450E-07	0	1.426E-07	0	0	5.520E-07	1.183E-07
424	389500	3875000	5.367E-08	6.947E-09	3.244E-07	0	1.340E-07	0	0	5.190E-07	1.112E-07
425	390000	3874000	9.984E-08	1.302E-08	6.080E-07	0	2.513E-07	0	0	9.722E-07	2.083E-07
426	390000	3874500	8.729E-08	1.138E-08	5.313E-07	0	2.196E-07	0	0	8.496E-07	1.821E-07
427	390000	3875000	7.851E-08	1.020E-08	4.764E-07	0	1.968E-07	0	0	7.619E-07	1.633E-07
428	390500	3874000	1.485E-07	1.949E-08	9.103E-07	0	3.760E-07	0	0	1.454E-06	3.116E-07
429	390500	3874500	1.218E-07	1.593E-08	7.440E-07	0	3.074E-07	0	0	1.189E-06	2.548E-07
430	390500	3875000	1.027E-07	1.342E-08	6.267E-07	0	2.589E-07	0	0	1.002E-06	2.147E-07
431	391000	3874000	1.854E-07	2.449E-08	1.144E-06	0	4.724E-07	0	0	1.826E-06	3.913E-07
432	391000	3874500	1.433E-07	1.888E-08	8.820E-07	0	3.643E-07	0	0	1.408E-06	3.017E-07
433	391000	3875000	1.161E-07	1.528E-08	7.137E-07	0	2.948E-07	0	0	1.140E-06	2.443E-07
434	391500	3874000	2.030E-07	2.682E-08	1.253E-06	0	5.174E-07	0	0	2.000E-06	4.286E-07
435	391500	3874500	1.561E-07	2.060E-08	9.619E-07	0	3.974E-07	0	0	1.536E-06	3.291E-07
436	391500	3875000	1.246E-07	1.642E-08	7.668E-07	0	3.169E-07	0	0	1.225E-06	2.625E-07
437	392000	3874000	2.034E-07	2.683E-08	1.253E-06	0	5.178E-07	0	0	2.001E-06	4.288E-07
438	392000	3874500	1.578E-07	2.076E-08	9.694E-07	0	4.006E-07	0	0	1.549E-06	3.319E-07
439	392000	3875000	1.263E-07	1.659E-08	7.749E-07	0	3.203E-07	0	0	1.238E-06	2.653E-07
440	392500	3874000	1.823E-07	2.409E-08	1.125E-06	0	4.650E-07	0	0	1.796E-06	3.849E-07
441	392500	3874500	1.484E-07	1.953E-08	9.118E-07	0	3.768E-07	0	0	1.457E-06	3.122E-07
442	392500	3875000	1.228E-07	1.613E-08	7.533E-07	0	3.113E-07	0	0	1.204E-06	2.580E-07
443	393000	3874000	1.546E-07	2.026E-08	9.460E-07	0	3.911E-07	0	0	1.512E-06	3.240E-07
444	393000	3874500	1.312E-07	1.713E-08	8.000E-07	0	3.305E-07	0	0	1.279E-06	2.741E-07
445	393000	3875000	1.100E-07	1.446E-08	6.753E-07	0	2.791E-07	0	0	1.079E-06	2.312E-07
446	393500	3874000	1.269E-07	1.671E-08	7.804E-07	0	3.228E-07	0	0	1.247E-06	2.672E-07
447	393500	3874500	1.083E-07	1.426E-08	6.657E-07	0	2.754E-07	0	0	1.064E-06	2.280E-07
448	393500	3875000	9.445E-08	1.241E-08	5.795E-07	0	2.396E-07	0	0	9.260E-07	1.984E-07
449	394000	3874000	1.043E-07	1.380E-08	6.443E-07	0	2.665E-07	0	0	1.029E-06	2.205E-07
450	394000	3874500	9.166E-08	1.210E-08	5.649E-07	0	2.336E-07	0	0	9.023E-07	1.934E-07
451	394000	3875000	8.147E-08	1.071E-08	5.003E-07	0	2.069E-07	0	0	7.994E-07	1.713E-07

Table 6

Day	P1	P2	Average	% Diff
29-Sep-90	11.6	10.8	11.2	6.90%
02-Oct-90	31.1	27.7	29.4	10.93%
05-Oct-90	35.3	33.9	34.6	3.97%
08-Oct-90	12	9.9	11.0	17.50%
11-Oct-90	29.5	27.2	28.4	7.80%
14-Oct-90	29	26.4	27.7	8.97%
17-Oct-90	25.9	24.1	25.0	6.95%
20-Oct-90	14.9	13	14.0	12.75%
23-Oct-90	17.9	16	17.0	10.61%
26-Oct-90	25.4	23.1	24.3	9.06%
29-Oct-90	22.4	20.4	21.4	8.93%
01-Nov-90	26.4	23.1	24.8	12.50%
04-Nov-90	9.7	9	9.4	7.22%
07-Nov-90	19.7	18.4	19.1	6.60%
10-Nov-90	6	5.4	5.7	10.00%
13-Nov-90	15.1	13.7	14.4	9.27%
16-Nov-90	19.1	17.7	18.4	7.33%
19-Nov-90	26.8	23.8	25.3	11.19%
22-Nov-90	12.1	10.9	11.5	9.92%
25-Nov-90	26.8	24.7	25.8	7.84%
28-Nov-90	11.8	10.4	11.1	11.86%
01-Dec-90	18.6	16.9	17.8	9.14%
04-Dec-90	6.6	5.7	6.2	13.64%
07-Dec-90	8.4	8.1	8.3	3.57%
10-Dec-90	16.2	15.6	15.9	3.70%
13-Dec-90	16.4	14.3	15.4	12.80%
16-Dec-90	6.2	5.1	5.7	17.74%
19-Dec-90	32.8	31.1	32.0	5.18%
22-Dec-90	8	7.5	7.8	6.25%
25-Dec-90	5.1	4.2	4.7	17.65%
28-Dec-90				
31-Dec-90	11.1	10.1	10.6	9.01%
03-Jan-91	4.9	5	5.0	2.00%
06-Jan-91	9.8	8.3	9.1	15.31%
09-Jan-91	8.6	7.9	8.3	8.14%
12-Jan-91	10.4	8.5	9.5	18.27%
15-Jan-91	22.6	21.4	22.0	5.31%
18-Jan-91	7.5	7.1	7.3	5.33%
21-Jan-91	4.7	4.9	4.8	4.08%
24-Jan-91	16.1	15.4	15.8	4.35%
27-Jan-91	33	33	33.0	0.00%
30-Jan-91	38.3	35.6	37.0	7.05%
02-Feb-91	12.8	12.8	12.8	0.00%
05-Feb-91	12.8	12.2	12.5	4.69%
08-Feb-91	12.2	11.5	11.9	5.74%
11-Feb-91	14.7	13.7	14.2	6.80%
14-Feb-91	7.5	7.3	7.4	2.67%

Table 6 (continued)

Day	P1	P2	Average	% Diff
17-Feb-91	30.6	29.3	30.0	4.25%
20-Feb-91	11.8	13.1	12.5	9.92%
23-Feb-91	24.4	22.2	23.3	9.02%
26-Feb-91	18.6	17.7	18.2	4.84%
01-Mar-91	6.3	4.6	5.5	26.98%
04-Mar-91	7.5	6.8	7.2	9.33%
07-Mar-91	9.5	9.4	9.5	1.05%
10-Mar-91	45.8	46.8	46.3	2.14%
13-Mar-91	7.8	8.3	8.1	6.02%
16-Mar-91	11.5	12.9	12.2	10.85%
19-Mar-91		10.9		
22-Mar-91	9.7	8.8	9.3	9.28%
25-Mar-91	3.6	6.1	4.9	40.98%
28-Mar-91	9	8.6	8.8	4.44%
31-Mar-91	15.9	15.2	15.6	4.40%
03-Apr-91	19.5	18.3	18.9	6.15%
06-Apr-91	26.2	25.3	25.8	3.44%
09-Apr-91	25.5	24.6	25.1	3.53%
12-Apr-91	25.4	24	24.7	5.51%
15-Apr-91	25.4	25.2	25.3	0.79%
18-Apr-91	25.3	24.7	25.0	2.37%
21-Apr-91	10.2	9.5	9.9	6.86%
24-Apr-91	20.3	19.1	19.7	5.91%
27-Apr-91	21.5	20.6	21.1	4.19%
30-Apr-91	44.7	41.7	43.2	6.71%
03-May-91	19.6	18.9	19.3	3.57%
06-May-91				
09-May-91	30.1	27.1	28.6	9.97%
12-May-91	22.4	20.1	21.3	10.27%
15-May-91	19.3	18.3	18.8	5.18%
18-May-91	16.4	15.2	15.8	7.32%
21-May-91	20.5	19.9	20.2	2.93%
24-May-91	30.2	27.2	28.7	9.93%
27-May-91	24.8	23.2	24.0	6.45%
30-May-91	53	48.9	51.0	7.74%
02-Jun-91	41	37	39.0	9.76%
05-Jun-91	39	33.9	36.5	13.08%
08-Jun-91	37.8	35.2	36.5	6.88%
11-Jun-91	34.4	32	33.2	6.98%
14-Jun-91	48.3	43.1	45.7	10.77%
17-Jun-91	27.1	26.1	26.6	3.69%
20-Jun-91	30.6	29.4	30.0	3.92%
23-Jun-91	33.9	20.1	27.0	40.71%
26-Jun-91	27.8	28.4	28.1	2.11%
29-Jun-91	15.7	15.7	15.7	0.00%
02-Jul-91	31.1	53.9	42.5	42.30%
05-Jul-91	32.2	29.9	31.1	7.14%

Table 6 (continued)

Day	P1	P2	Average	% Diff
08-Jul-91	20.9	20.4	20.7	2.39%
11-Jul-91	26.5	26.7	26.6	0.75%
14-Jul-91	25.8	26.3	26.1	1.90%
17-Jul-91	25.4	25.4	25.4	0.00%
20-Jul-91	25.8	26.5	26.2	2.64%
23-Jul-91	30	28.4	29.2	5.33%
26-Jul-91	27.2	31.4	29.3	13.38%
29-Jul-91	29.9	30.7	30.3	2.61%
01-Aug-91	43.2	30.9	37.1	28.47%
04-Aug-91	26.3	28.7	27.5	8.36%
07-Aug-91	27.2	27.6	27.4	1.45%
10-Aug-91	30.6	29.8	30.2	2.61%
13-Aug-91	19.8	19.7	19.8	0.51%
16-Aug-91	26.4	19.8	23.1	25.00%
19-Aug-91	21.2	19.8	20.5	6.60%
22-Aug-91	30.5	28.2	29.4	7.54%
25-Aug-91	30.2	28.5	29.4	5.63%
28-Aug-91	28	27.2	27.6	2.86%
31-Aug-91	30.2	29	29.6	3.97%
03-Sep-91	32.3	32.9	32.6	1.82%
06-Sep-91	26.2	27.9	27.1	6.09%
09-Sep-91	40.9	44.6	42.8	8.30%
12-Sep-91	34.1	35.5	34.8	3.94%
15-Sep-91	25.8	29.6	27.7	12.84%
18-Sep-91	29.7	29	29.4	2.36%
Minimum	3.6	4.2	4.7	0.00%
Maximum	53.0	53.9	51.0	42.30%
Arithmetic Mean	22.2	21.1	21.7	
Geometric Mean	19.2	17.8	18.8	

TABLE 7

*** 70-YEAR LIFETIME CANCER RISK BY POLLUTANT FOR PEAK RECEPTOR # 68 ***

POLLUTANT	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
ACETA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	3.986E-06	2.814E-07	1.330E-05	0.000E+00	5.541E-06	0.000E+00	0.000E+00	2.310E-05
BENZE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	1.204E-07	2.578E-08	1.218E-06	0.000E+00	4.761E-07	0.000E+00	0.000E+00	1.840E-06
Cd	1.863E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.863E-07
Cr	1.023E-06	4.187E-09	1.978E-08	0.000E+00	7.963E-09	0.000E+00	0.000E+00	1.055E-06
HCHO	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	1.641E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.641E-08
Ni	8.714E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.714E-09
PAH	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	5.341E-06	3.113E-07	1.453E-05	0.000E+00	6.025E-06	0.000E+00	0.000E+00	2.621E-05

RECEPTOR RISK OF 2.621E-05 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 2.621E-05 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07
RECEPTOR POPULATION = 0
RECEPTOR BURDEN = 0.000E+00

TABLE 8

*** 70-YEAR LIFETIME CANCER RISK BY SOURCE FOR PEAK RECEPTOR # 68 ***

SOURCE	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
1	2.125E-09	1.438E-10	6.721E-09	0.000E+00	2.756E-09	0.000E+00	0.000E+00	1.175E-08
2	2.590E-09	1.752E-10	8.189E-09	0.000E+00	3.358E-09	0.000E+00	0.000E+00	1.431E-08
3	1.499E-08	1.014E-09	4.741E-08	0.000E+00	1.944E-08	0.000E+00	0.000E+00	8.286E-08
4	2.686E-08	1.817E-09	8.493E-08	0.000E+00	3.483E-08	0.000E+00	0.000E+00	1.484E-07
5	2.047E-08	1.385E-09	6.473E-08	0.000E+00	2.655E-08	0.000E+00	0.000E+00	1.131E-07
6	1.598E-08	1.081E-09	5.052E-08	0.000E+00	2.072E-08	0.000E+00	0.000E+00	8.829E-08
7	1.150E-09	7.789E-11	3.642E-09	0.000E+00	1.493E-09	0.000E+00	0.000E+00	6.363E-09
8	7.426E-10	5.030E-11	2.351E-09	0.000E+00	9.641E-10	0.000E+00	0.000E+00	4.108E-09
9	1.023E-09	6.931E-11	3.240E-09	0.000E+00	1.329E-09	0.000E+00	0.000E+00	5.662E-09
10	5.386E-10	3.648E-11	1.705E-09	0.000E+00	6.993E-10	0.000E+00	0.000E+00	2.980E-09
11	5.310E-10	3.596E-11	1.681E-09	0.000E+00	6.894E-10	0.000E+00	0.000E+00	2.938E-09
12	4.079E-10	2.763E-11	1.292E-09	0.000E+00	5.296E-10	0.000E+00	0.000E+00	2.257E-09
13	3.070E-08	2.077E-09	9.708E-08	0.000E+00	3.981E-08	0.000E+00	0.000E+00	1.697E-07
14	3.706E-08	2.507E-09	1.172E-07	0.000E+00	4.805E-08	0.000E+00	0.000E+00	2.048E-07
15	2.126E-07	1.438E-08	6.722E-07	0.000E+00	2.756E-07	0.000E+00	0.000E+00	1.175E-06
16	3.747E-07	2.534E-08	1.185E-06	0.000E+00	4.858E-07	0.000E+00	0.000E+00	2.071E-06
17	2.679E-07	1.812E-08	8.470E-07	0.000E+00	3.473E-07	0.000E+00	0.000E+00	1.480E-06
18	2.183E-07	1.476E-08	6.902E-07	0.000E+00	2.830E-07	0.000E+00	0.000E+00	1.206E-06
19	1.756E-08	9.783E-10	4.564E-08	0.000E+00	1.901E-08	0.000E+00	0.000E+00	8.318E-08
20	2.137E-08	1.191E-09	5.554E-08	0.000E+00	2.313E-08	0.000E+00	0.000E+00	1.012E-07
21	1.014E-07	5.647E-09	2.634E-07	0.000E+00	1.097E-07	0.000E+00	0.000E+00	4.802E-07
22	1.777E-07	9.902E-09	4.619E-07	0.000E+00	1.924E-07	0.000E+00	0.000E+00	8.419E-07
23	1.256E-07	6.999E-09	3.265E-07	0.000E+00	1.360E-07	0.000E+00	0.000E+00	5.951E-07
24	9.703E-08	5.407E-09	2.522E-07	0.000E+00	1.050E-07	0.000E+00	0.000E+00	4.597E-07
25	7.461E-08	3.523E-09	1.654E-07	0.000E+00	6.573E-08	0.000E+00	0.000E+00	3.093E-07
26	1.107E-07	6.167E-09	2.877E-07	0.000E+00	1.198E-07	0.000E+00	0.000E+00	5.243E-07
27	2.688E-07	1.498E-08	6.986E-07	0.000E+00	2.910E-07	0.000E+00	0.000E+00	1.273E-06
28	3.467E-07	1.932E-08	9.013E-07	0.000E+00	3.754E-07	0.000E+00	0.000E+00	1.643E-06
29	1.746E-06	9.730E-08	4.539E-06	0.000E+00	1.890E-06	0.000E+00	0.000E+00	8.273E-06
30	1.070E-07	5.962E-09	2.781E-07	0.000E+00	1.158E-07	0.000E+00	0.000E+00	5.069E-07
31	2.055E-08	1.145E-09	5.342E-08	0.000E+00	2.225E-08	0.000E+00	0.000E+00	9.737E-08
32	4.929E-08	2.746E-09	1.281E-07	0.000E+00	5.336E-08	0.000E+00	0.000E+00	2.335E-07
33	6.105E-08	3.401E-09	1.587E-07	0.000E+00	6.609E-08	0.000E+00	0.000E+00	2.892E-07
34	2.386E-07	1.329E-08	6.201E-07	0.000E+00	2.583E-07	0.000E+00	0.000E+00	1.130E-06
35	1.982E-08	1.105E-09	5.152E-08	0.000E+00	2.146E-08	0.000E+00	0.000E+00	9.391E-08
36	3.081E-08	1.717E-09	8.008E-08	0.000E+00	3.335E-08	0.000E+00	0.000E+00	1.459E-07
37	7.320E-08	4.078E-09	1.903E-07	0.000E+00	7.924E-08	0.000E+00	0.000E+00	3.468E-07
38	8.804E-08	4.906E-09	2.288E-07	0.000E+00	9.531E-08	0.000E+00	0.000E+00	4.171E-07
39	3.021E-07	1.683E-08	7.851E-07	0.000E+00	3.270E-07	0.000E+00	0.000E+00	1.431E-06
40	2.966E-08	1.652E-09	7.709E-08	0.000E+00	3.211E-08	0.000E+00	0.000E+00	1.405E-07
41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
45	4.605E-09	1.825E-12	8.625E-12	0.000E+00	3.471E-12	0.000E+00	0.000E+00	4.619E-09
46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	5.341E-06	3.113E-07	1.453E-05	0.000E+00	6.025E-06	0.000E+00	0.000E+00	2.621E-05

RECEPTOR RISK OF 2.621E-05 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 2.621E-05 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07
RECEPTOR POPULATION = 0
RECEPTOR BURDEN = 0.000E+00

TABLE 9

*** ACUTE HAZARD INDEX BY POLLUTANT FOR PEAK RECEPTOR # 34 ***

POLLUTANT	CONC (ug/m3)	BACKGR (ug/m3)	AEL (ug/m3)	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
ACROL	0.000E+00	0.000E+00	2.500E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	4.593E-03	0.000E+00	1.000E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.593E-04	0.000E+00
HCHO	0.000E+00	0.000E+00	3.700E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	4.528E+01	0.000E+00	3.300E+03	0.000E+00	1.372E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	0.000E+00	0.000E+00	3.000E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	3.115E-03	0.000E+00	1.000E+00	0.000E+00	0.000E+00	3.115E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	2.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	0.000E+00	0.000E+00	4.400E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
			SUM =	0.000E+00	1.372E-02	3.115E-03	0.000E+00	0.000E+00	0.000E+00	4.593E-04	0.000E+00

TABLE 10

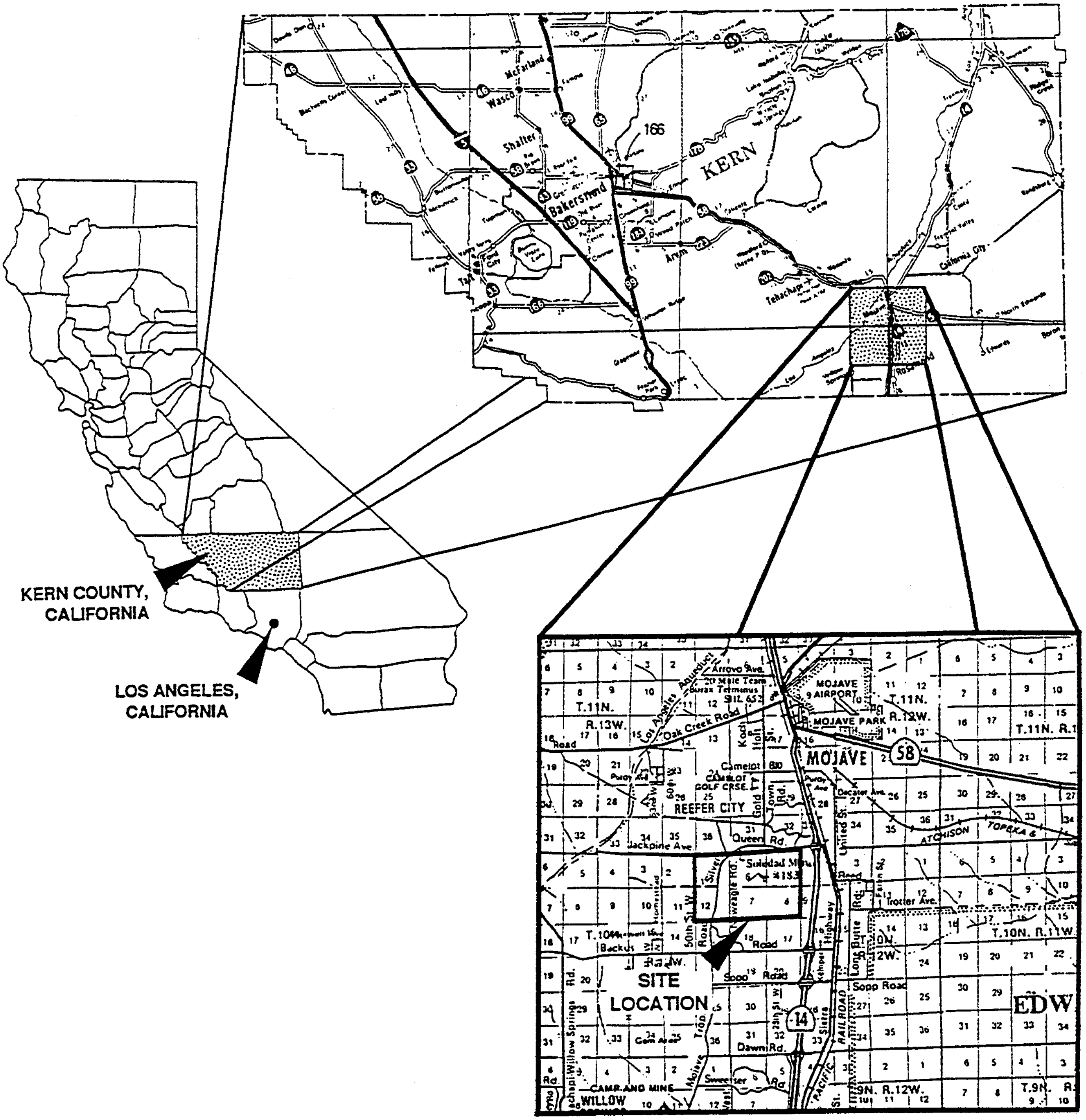
*** CHRONIC HAZARD INDEX BY POLLUTANT FOR PEAK RECEPTOR # 87 ***

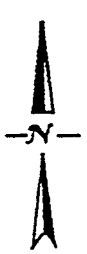
POLLUTANT	ORAL DOSE (mg/kg-d)	BACKGR (ug/m3)	AEL (ug/m3)	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
ACETA	0.000E+00	0.000E+00	9.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	0.000E+00	0.000E+00	2.000E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	1.000E-03	0.000E+00	5.000E-01	2.769E-03	2.769E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.892E-04	2.769E-03
BENZE	0.000E+00	0.000E+00	7.100E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	5.000E-03	0.000E+00	4.800E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.566E-03	0.000E+00
Cd	1.000E-03	0.000E+00	3.500E+00	0.000E+00	0.000E+00	0.000E+00	1.240E-04	0.000E+00	0.000E+00	2.546E-06	0.000E+00
Cr	5.000E-03	0.000E+00	2.000E-03	0.000E+00	0.000E+00	0.000E+00	7.480E-04	7.480E-04	0.000E+00	7.449E-04	0.000E+00
Cu	0.000E+00	0.000E+00	2.400E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.557E-06	0.000E+00
HCHO	0.000E+00	0.000E+00	3.600E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	0.000E+00	0.000E+00	7.000E+01	0.000E+00	4.734E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	4.300E-04	0.000E+00	1.500E+00	9.425E-04	9.425E-04	9.425E-04	9.425E-04	0.000E+00	9.425E-04	0.000E+00	0.000E+00
Mn	0.000E+00	0.000E+00	4.000E-01	0.000E+00	5.829E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.829E-04	0.000E+00
Hg	3.000E-04	0.000E+00	3.000E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	0.000E+00	0.000E+00	2.400E-01	0.000E+00	0.000E+00	2.853E-05	2.853E-05	0.000E+00	0.000E+00	2.853E-05	0.000E+00
NAPTH	4.000E-03	0.000E+00	1.400E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	5.000E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	0.000E+00	0.000E+00	2.000E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	0.000E+00	0.000E+00	3.000E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	0.000E+00	0.000E+00	3.500E+01	8.965E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.965E-07	0.000E+00
			SUM =	3.713E-03	5.163E-02	9.710E-04	1.843E-03	7.480E-04	9.425E-04	4.423E-03	2.769E-03

TABLE 11
ALTERNATIVES EVALUATION

Source	Max Conc	Date	X	Y	+20.00%	-20.00%
DRLPIT1	0.1944	91010424	390203	3872720		
DRLPIT2	0.0809	91030424	390669	3872895		
DRLPIT3	0.6113	91102924	391846	3872159		
DRLPIT4	0.2513	91102224	392694	3871346		
DRLPIT5	0.1678	91120924	391842	3870521		
DRLPIT6	0.1665	91120924	391445	3870519		
BLSPIT1	2.5751	91122724	391044	3870310		
BLSPIT2	2.8768	91112424	392607	3870689	2.88	2.88
BLSPIT3	2.6327	91111424	391846	3872159		
BLSPIT4	1.4874	91010624	390904	3872902		
BLSPIT5	1.5918	91121324	392010	3870521		
BLSPIT6	1.3898	91121324	391643	3870520		
TRLPIT1	2.2566	91010424	390203	3872720		
TRLPIT2	1.1981	91030424	390669	3872895		
TRLPIT3	4.7605	91102924	391846	3872159		
TRLPIT4	3.7256	91102224	392694	3871346		
TRLPIT5	2.4449	91120924	391842	3870521		
TRLPIT6	2.4289	91120924	391445	3870519		
HAUL_1	2.9507	91102724	390027	3872472		
HAUL_2	0.8520	91010424	390352	3872832		
HAUL_3	6.1348	91102924	391846	3872159		
HAUL_4	3.6335	91012224	392670	3871765		
HAUL_5	1.6690	91120924	391842	3870521		
HAUL_6	1.6660	91120924	391445	3870519		
BGHSE1	2.0032	91111124	391846	3872159	2.40	1.60
TRU_WST1	2.5193	91092924	390209	3871270		
TRU_WST2	3.6582	91112424	391049	3870518		
TRU_WST3	4.4429	91120924	391049	3870518		
TRU_WST4	6.1439	91120924	391643	3870520		
TRU_WST5	6.6818	91112424	392694	3871346		
DZG_W1	0.2389	91092924	390209	3871270		
DZG_W2	0.3701	91112424	391049	3870518		
DZG_W3	0.3186	91010124	391049	3870518		
DZG_W4	0.4772	91120924	391643	3870520		
DZG_W5	0.5342	91120924	392694	3871346		
ERSN_W1	0.9120	91092924	390209	3871270		
ERSN_W2	1.4721	91112424	391049	3870518		
ERSN_W3	1.0974	91122424	391247	3870518		
ERSN_W4	1.6694	91120924	391643	3870520		
ERSN_W5	1.9674	91120924	392694	3871346		
PIT_1	24.4784	91120924	391643	3870520		
PIT_2	24.3803	91120924	391643	3870520		
PIT_3	26.8219	91120924	391643	3870520		
PIT_4	26.8198	91120924	391643	3870520		
PIT_5	26.8198	91120924	391643	3870520		
PIT_6	26.0365	91120924	391643	3870520		
DRILLING	0.8648	91102924	391846	3872159	1.04	0.69
LOADING	9.0584	91120924	391842	3870521	10.87	7.25
HAULING	8.6330	91102924	391846	3872159	10.36	6.91
UNLOADG	8.5697	91120924	391049	3870518	10.28	6.86
DOZING	0.7473	91120924	391049	3870518	0.90	0.60
EROSION	2.8077	91120924	391049	3870518	2.81	2.81
Maximum	26.8219				31.33	22.32
			Background		18.8	18.8
			Total		50.13	41.12

EXHIBITS



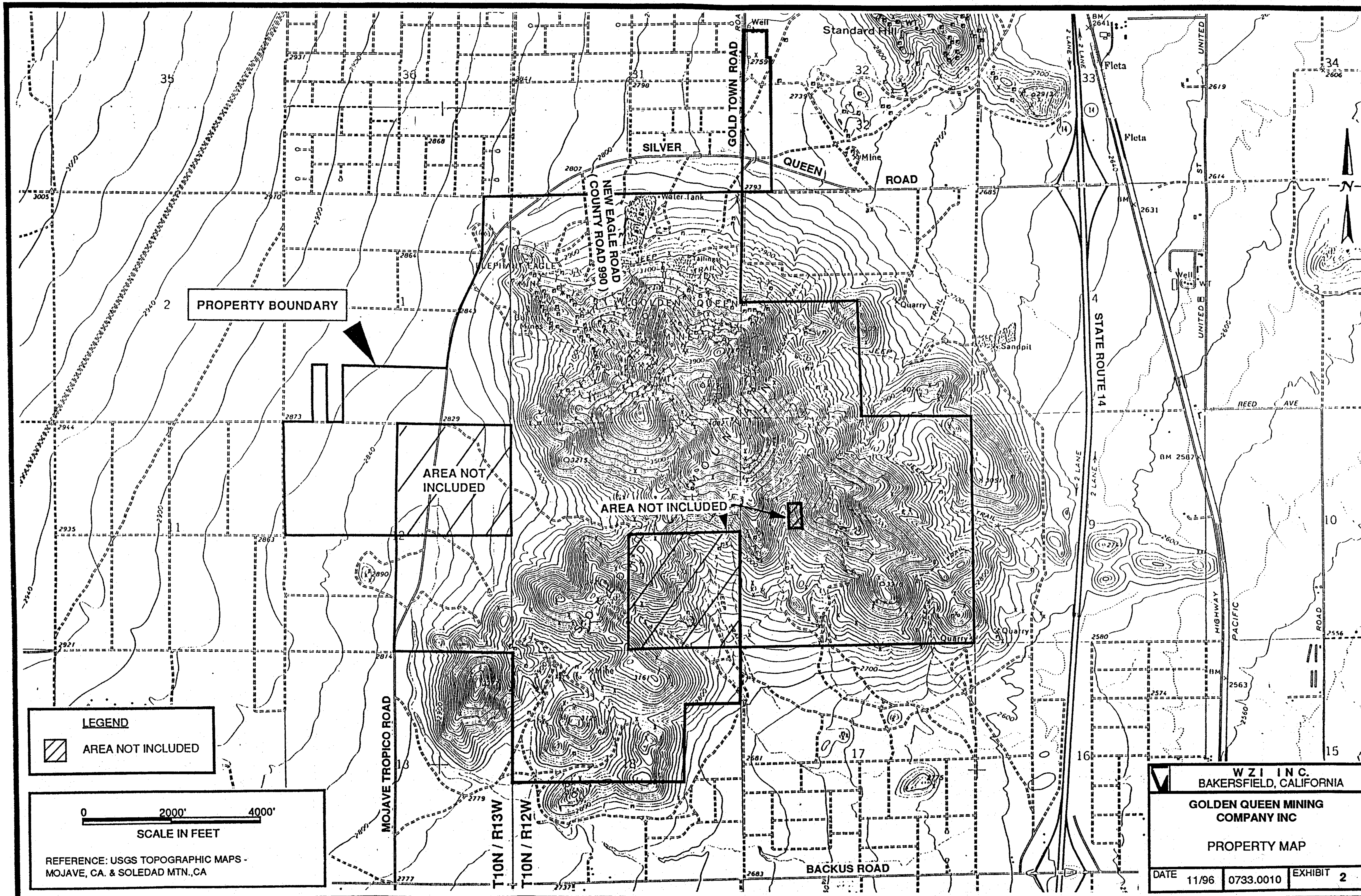


WZI INC.
BAKERSFIELD, CALIFORNIA

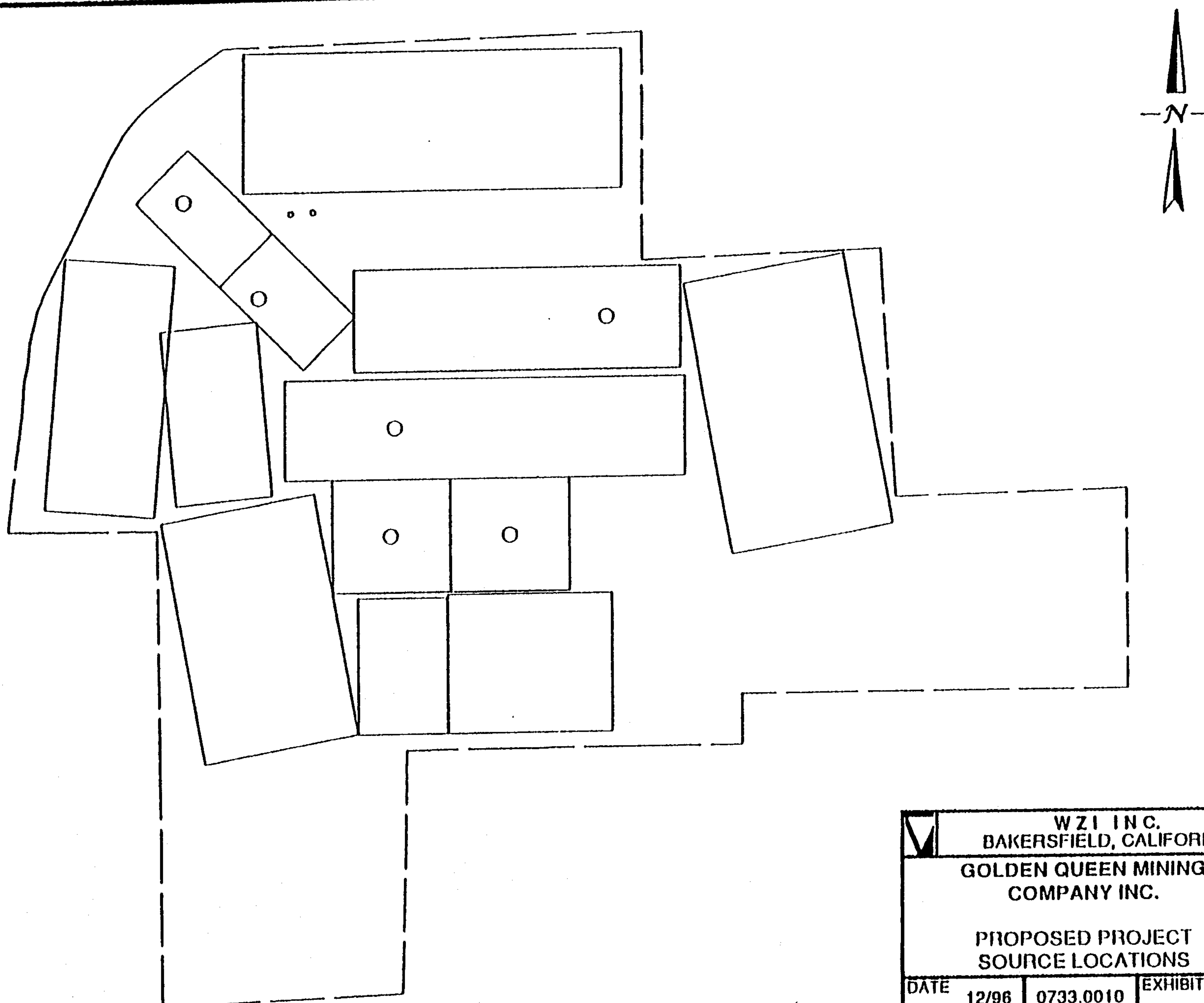
GOLDEN QUEEN MINING COMPANY INC.

REGIONAL
LOCATION MAP

DATE 11/95	0733.0010A	EXHIBIT 1



PROPERTY BOUNDARY
AREA NOT INCLUDED
AREA NOT INCLUDED
NEW EAGLE ROAD (COUNTY ROAD 990)
GOLD TOWN ROAD
SILVER
QUEEN
ROAD
STATE ROUTE 14
MOJAVE TROPICO ROAD
BACKUS ROAD
T10N / R13W
T10N / R12W
Standard Hill
Fleta
Water Tank
Quarry
Sandpit
REED AVE
LEGEND
AREA NOT INCLUDED
0
2000'
4000'
SCALE IN FEET
REFERENCE: USGS TOPOGRAPHIC MAPS - MOJAVE, CA. & SOLEDAD MTN.,CA
W Z I INC.
BAKERSFIELD, CALIFORNIA
GOLDEN QUEEN MINING COMPANY INC
PROPERTY MAP
DATE 11/96
0733.0010
EXHIBIT 2



WZI INC. BAKERSFIELD, CALIFORNIA				
GOLDEN QUEEN MINING COMPANY INC.				
PROPOSED PROJECT SOURCE LOCATIONS				
DATE	12/96	0733.0010	EXHIBIT	3

EXHIBIT 4
Fence Line and Specific Receptor Locations

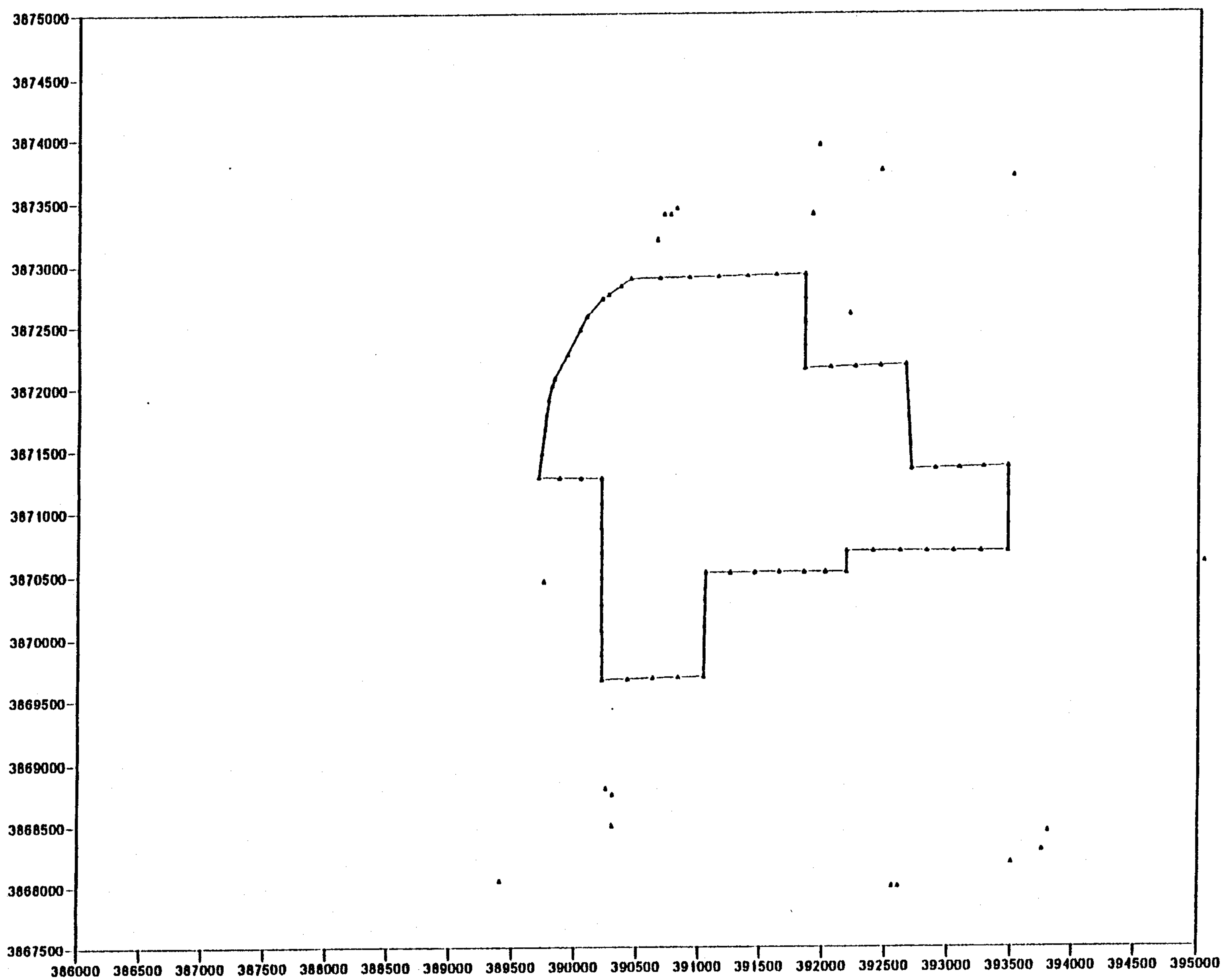
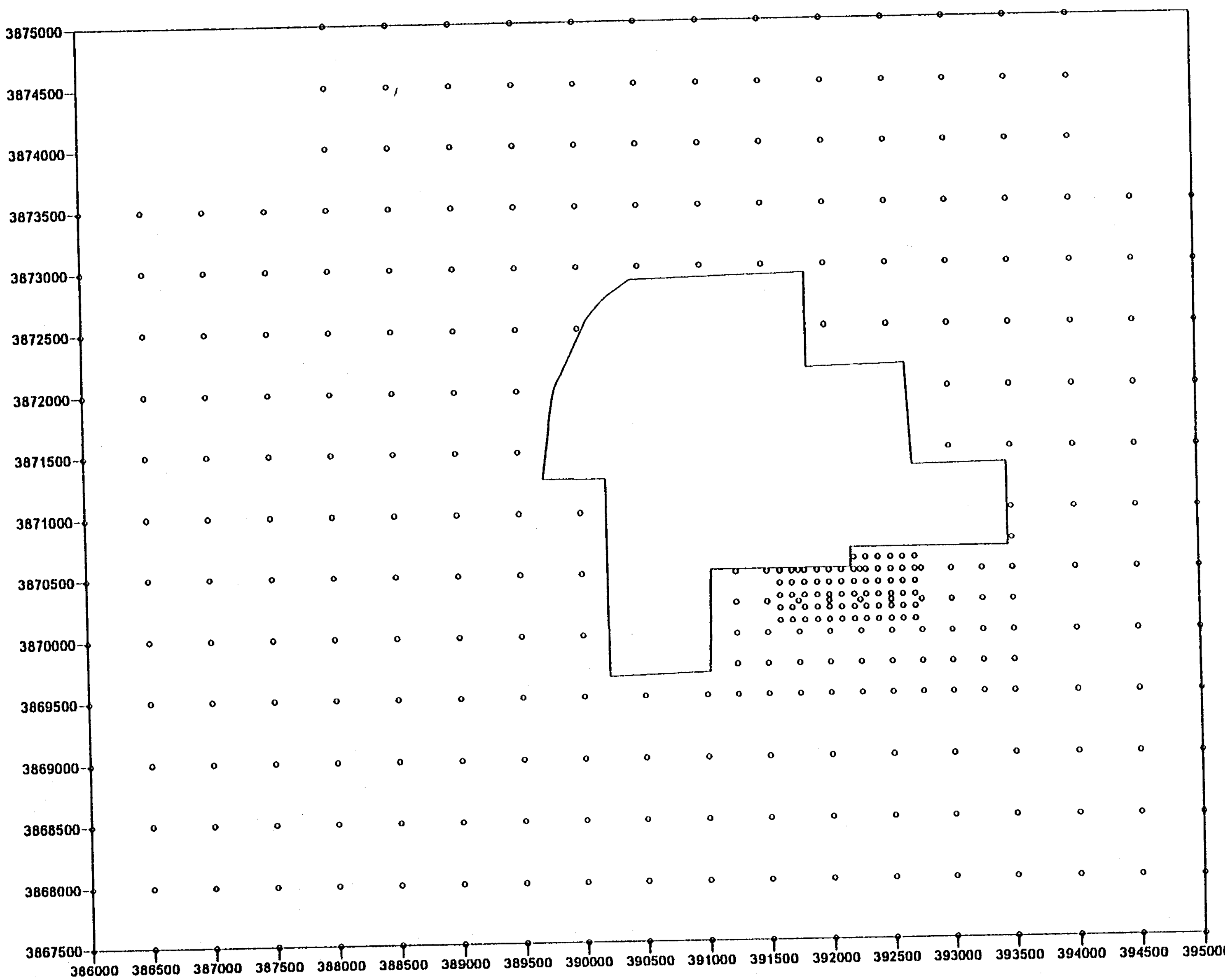
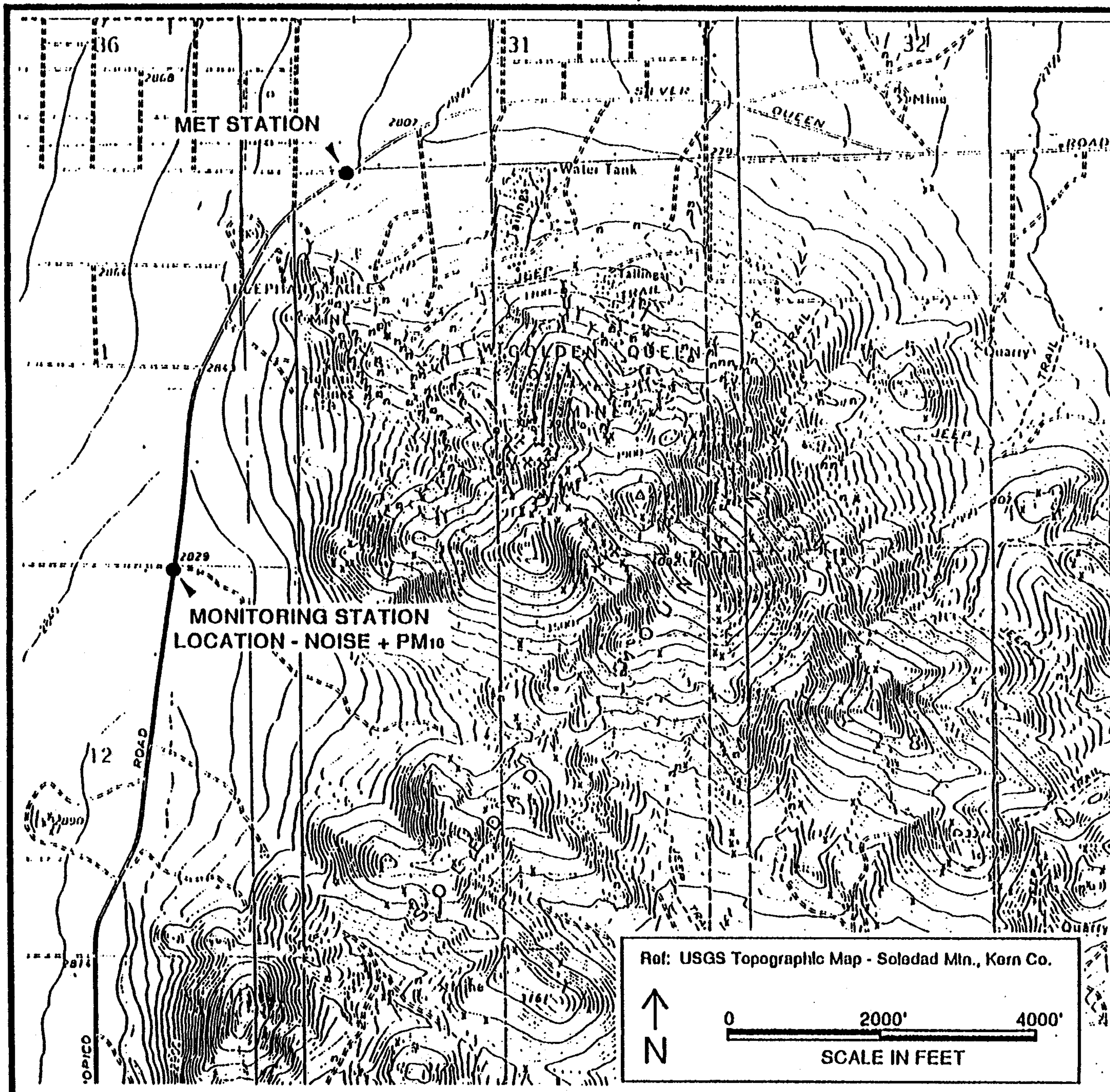


EXHIBIT 5
Gridded Receptor Locations





WZI INC.
BAKERSFIELD, CALIFORNIA

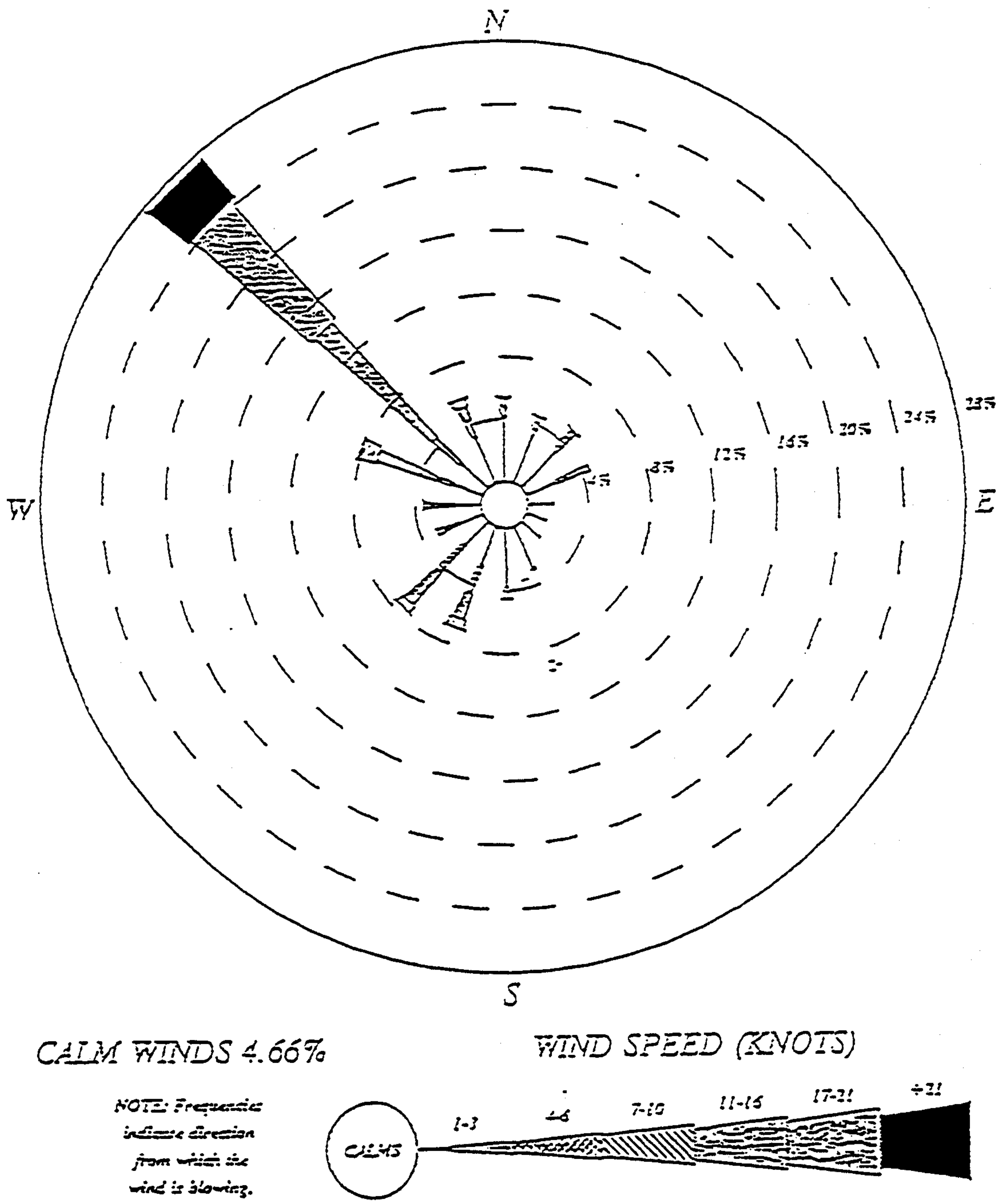
GOLDEN QUEEN MINING COMPANY INC.

LOCATION OF ONSITE MONITORING STATIONS DURING 1990 & 1991

DATE 11/95	0733.0010	EXHIBIT 6

Soledad

October 1989 to September 1990; Midnight - 11 PM



CALM WINDS 4.66%

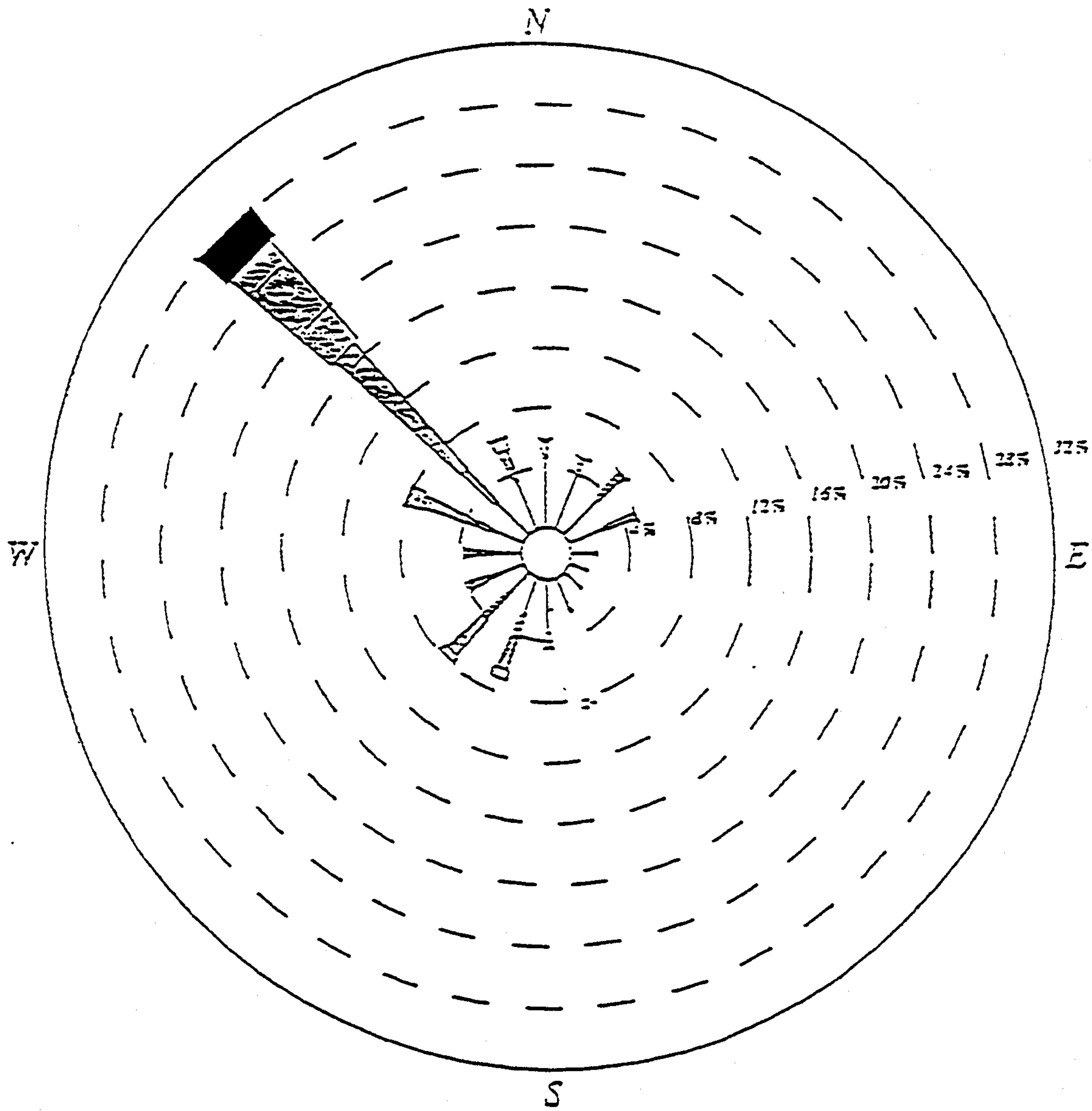
WIND SPEED (KNOTS)

NOTE: Frequencies indicate direction from which the wind is blowing.

W Z I INC. BAKERSFIELD, CALIFORNIA	
GOLDEN QUEEN MINING COMPANY INC. Soledad Mountain Project	
WIND ROSE DIAGRAM ONSITE DATA 1989-1990	
DATE 11/96	0733.0010	EXHIBIT 7

Soledad

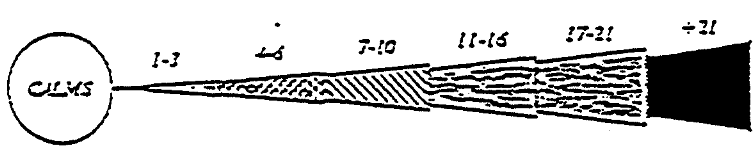
September 1990 to August 1991; Midnight - 11 PM



CALM WINDS 0.17%

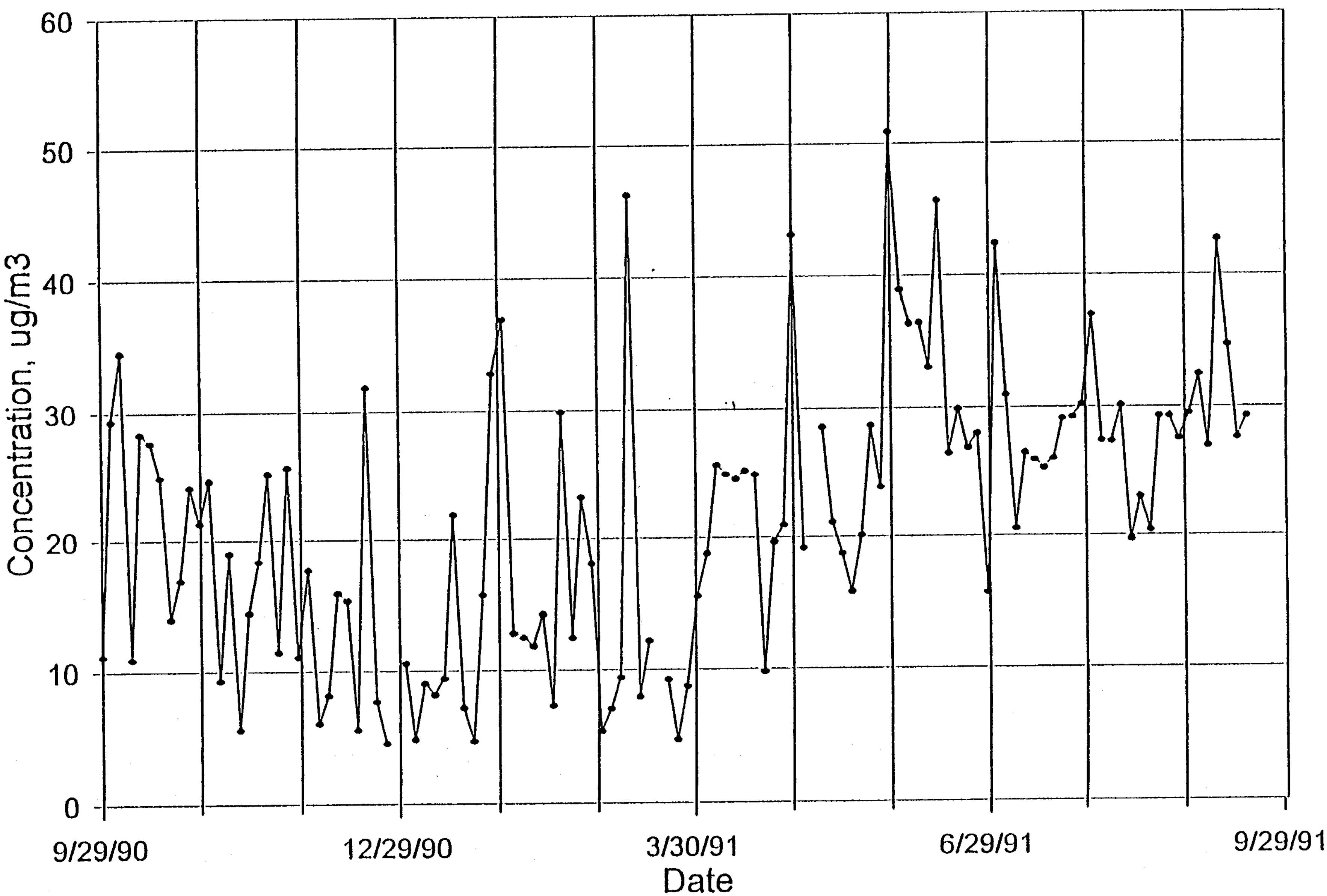
WIND SPEED (KNOTS)

NOTE: Frequencies indicate direction from which the wind is blowing.



WZI INC. BAKERSFIELD, CALIFORNIA		
GOLDEN QUEEN MINING COMPANY INC. Soledad Mountain Project		
WIND ROSE DIAGRAM ONSITE DATA 1990-1991		
DATE 11/96	0733.0010	EXHIBIT 8

EXHIBIT 9
PM10 Sampling Results

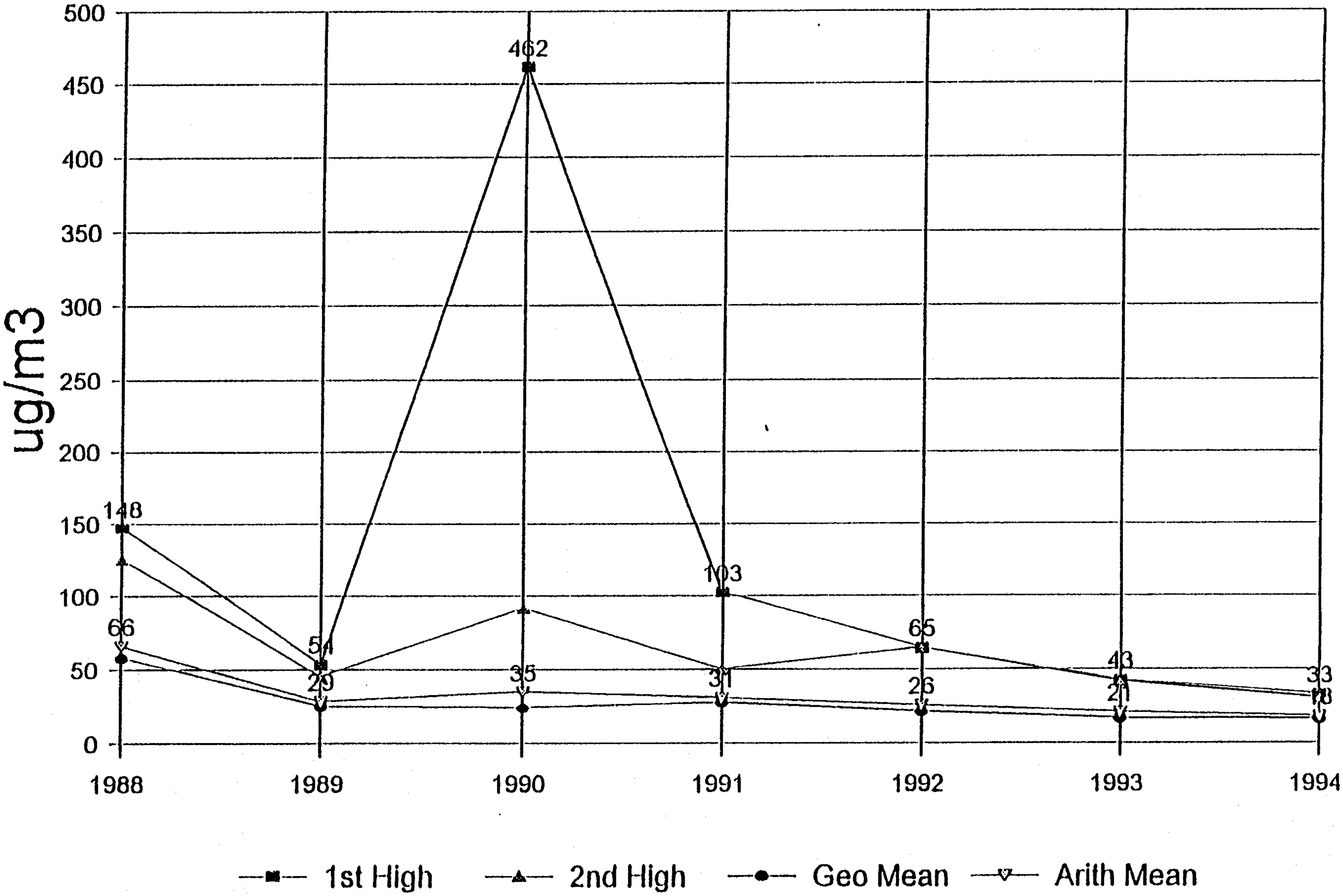


PART9091.WB2

19-Nov-96

EXHIBIT 10

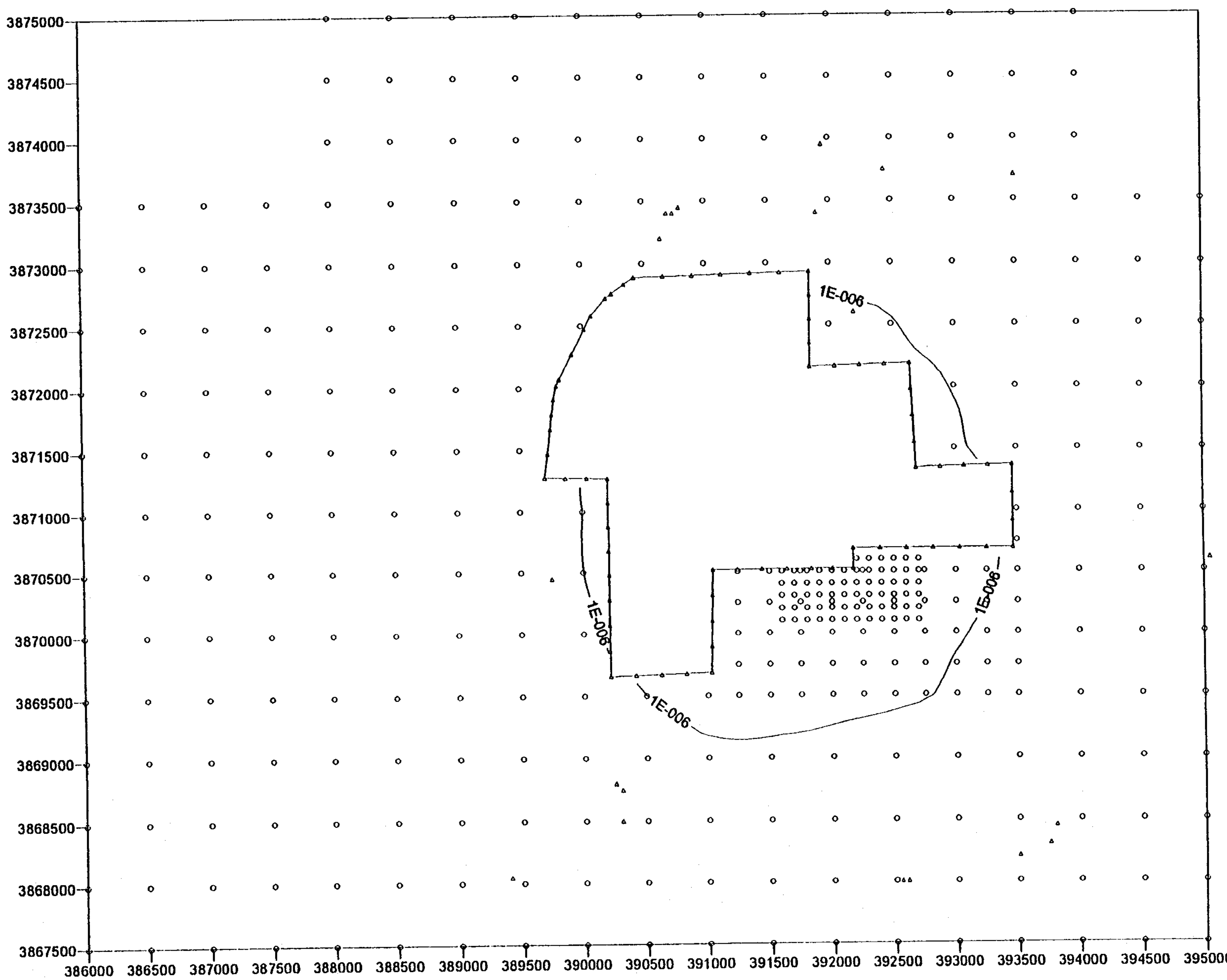
Mojave PM10 Monitoring Results



MOJPART.WB2

19-Nov-96

EXHIBIT 11
1E-06 Excess Cancer Risk Isopleth



APPENDIX A

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

THOMAS PAXSON, P.E., APCO

BAKERSFIELD OFFICE
2700 "M" STREET, SUITE 290
BAKERSFIELD, CA 93301
PHONE: (805) 861-2593
FAX: (805) 861-2595

MOJAVE OFFICE
1775 HIGHWAY 58
MOJAVE, CA 93501
PHONE: (805) 824-4631
FAX: (805) 824-1140

June 1, 1995

Mr. Greg McNeish
WZI., Inc.
4700 Stockdale Hwy
Suite 120
P.O. BOX 9217
Bakersfield, CA 93389

SUBJECT: Golden Queen Mining-Review of Modelling Protocol

Dear Mr. McNeish:

We have reviewed your proposed modelling protocol to be used in estimating the air quality impact of the proposed Golden Queen Mining Company project. This protocol is acceptable provided you include the following revisions/clarifications:

1) Impact of project on State and National Ambient Air Quality Standards, (above background concentrations) must be determined and discussed in EIR/EIS document.

2) Model input and output results shall be submitted on 3-1/2" disk.

3) Federal and/or Cal-EPA adopted/approved Dispersion Modelling, Risk Assessment, and Risk Management Guideline shall be followed. Any variations from regulatory defaults shall be clearly identified and discussed in final report and any such variations shall receive prior approval.

4) Combustion emissions from all anticipated sources shall be included in modelling and in NSR permitting.

5) Emissions from gold recovery/refining operations shall be included in modelling and NSR permitting.

6) Calculation of emission rates showing all assumptions shall be submitted. Calculation of fugitive emissions shall utilize most recent AP-42 equations and on-site raw material data.

7) Copy of on-site raw material laboratory data used in calculations shall be submitted including description of how sample was obtained and test methods used in analysis.

8) Emissions occurring from unloading of ore and waste onto stockpile or leach pile shall be included in modelling.

9) Reflection coefficient may be adjusted for settling velocities if on-site data is previously approved for use in calculating the settling velocity as specified in ISC2 manual. Default values for deposition velocity may not be used in place of settling velocity in determining alternate reflection coefficient.

10) Reduce grid spacing to 100 meters around estimated peak off-site locations as opposed to 500 meter spacing proposed. Include map of area showing receptor locations.

11) Please indicate location of meteorological stations on a topographic map of area. Also include wind rose, plot or table of average hourly wind speeds, discussion of treatment of calms and discussion of averaging times used in modelling.

12) Discuss suitability of Nevada mixing height data as opposed to using mixing height data from nearby Edwards AFB. Unless data clearly indicates Nevada is more representative of conditions near Soledad Mountain, mixing height data from Edwards AFB should be used.

13) Impact analysis on Class I and Class II areas shall be performed pursuant to EPA requirements.

Thank you for you cooperation in this matter. Should you have any questions, please contact Ms. Mary J. Flynn at (805) 861-2593.

Sincerely,

Thomas Paxson, P.E.
Air Pollution Control Officer

TP:MJF:bjm
MFL137

APPENDIX B

```
**BEE-Line Software: BEEST for Windows data input file
**                   Date: 11/4/96  Time: 6:11:27 PM
NO ECHO

CO STARTING
CO TITLEONE GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT
CO TITLETWO PM10 Analysis - 1991 Met - 6 MMTPY Hourly Average
CO MODELOPT CONC RURAL MSGPRO
CO AVERTIME 24
CO POLLUTID PM-10
CO TERRHGTS ELEV
CO RUNORNOT RUN
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
SO LOCATION DRLPIT1 AREA 390138.00 3872375.00 960.1200
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SO LOCATION DRLPIT2 AREA 390421.00 3872091.00 975.3600
SO SRCPARAM DRLPIT2 3.017E-08 2.0000 400.00 250.00 45.00 .00
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SO SRCGROUP TRU_WST1 TRU_WST1
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SO SRCGROUP TRU_WST3 TRU_WST3
SO SRCGROUP TRU_WST4 TRU_WST4
SO SRCGROUP TRU_WST5 TRU_WST5
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SO SRCGROUP DZG_W2 DZG_W2
SO SRCGROUP DZG_W3 DZG_W3
SO SRCGROUP DZG_W4 DZG_W4
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SO SRCGROUP ERSN_W2 ERSN_W2
SO SRCGROUP ERSN_W3 ERSN_W3
SO SRCGROUP ERSN_W4 ERSN_W4
SO SRCGROUP ERSN_W5 ERSN_W5
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SO SRCGROUP PIT_2 TRU_WST3  TRU_WST4  TRU_WST5  DZG_W1    DZG_W2    DZG_W3    DZG_W4    DZG_W5    ERSN_W1   ERSN_W2
SO SRCGROUP PIT_2 ERSN_W3   ERSN_W4   ERSN_W5
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SO SRCGROUP PIT_3 TRLPIT4   TRLPIT5   TRLPIT6   HAUL_1    HAUL_2    HAUL_3    HAUL_4    HAUL_5    HAUL_6    BGHSE1
SO SRCGROUP PIT_3 CONVEY    TRU_WST1  TRU_WST2  TRU_WST3  TRU_WST4  TRU_WST5  DZG_W1    DZG_W2    DZG_W3    DZG_W4
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SO SRCGROUP PIT_5 CONVEY    TRU_WST1  TRU_WST2  TRU_WST3  TRU_WST4  TRU_WST5  DZG_W1    DZG_W2    DZG_W3    DZG_W4
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SO SRCGROUP PIT_6 ERSN_W4   ERSN_W5
SO SRCGROUP DRILLING DRLPIT1   DRLPIT2   DRLPIT3   DRLPIT4   DRLPIT5   DRLPIT6
SO SRCGROUP LOADING TRLPIT1   TRLPIT2   TRLPIT3   TRLPIT4   TRLPIT5   TRLPIT6
SO SRCGROUP HAULING HAUL_1    HAUL_2    HAUL_3    HAUL_4    HAUL_5    HAUL_6
SO SRCGROUP UNLOADG TRU_WST1  TRU_WST2  TRU_WST3  TRU_WST4  TRU_WST5
SO SRCGROUP DOZING DZG_W1    DZG_W2    DZG_W3    DZG_W4    DZG_W5
SO SRCGROUP EROSION ERSN_W1   ERSN_W2   ERSN_W3   ERSN_W4   ERSN_W5
SO FINISHED

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ME DTHETADZ F 0.035 0.035 0.035 0.035 0.035 0.035
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OU PLOTFILE 24 DRLPIT3 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 DRLPIT4 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 DRLPIT5 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 DRLPIT6 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 BLSPIT3 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 BLSPIT5 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 BLSPIT6 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 TRLPIT2 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 TRLPIT3 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 TRLPIT6 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 HAUL_2 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 HAUL_3 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 HAUL_4 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 HAUL_6 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 TRU_WST4 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 TRU_WST5 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 DZG_W2 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 DZG_W3 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 DZG_W4 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 DZG_W5 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 ERSN_W2 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 ERSN_W3 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 ERSN_W4 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 ERSN_W5 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 PIT_1 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 PIT_2 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 PIT_3 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 PIT_4 FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 PIT_5 FIRST G:®BEEST®GQ®FENCE.GRF 30
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OU PLOTFILE 24 HAULING FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 UNLOADG FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 DOZING FIRST G:®BEEST®GQ®FENCE.GRF 30
OU PLOTFILE 24 EROSION FIRST G:®BEEST®GQ®FENCE.GRF 30
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APPENDIX C

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**BEE-Line Software: BEEST for Windows data input file
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CO TITLETWO PM10 Analysis - 1991 Met - 6 MMTPY Hourly Average
CO MODELOPT CONC RURAL MSGPRO
CO AVERTIME 1 PERIOD
CO POLLUTID PM-10
CO TERRHGTS ELEV
CO RUNORNOT RUN
CO FINISHED

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ME STARTING
ME INPUTFIL g:®METDATA®SOL®SOL91M.ASC
ME ANEMHGHT 10.0000
ME SURFDATA  98765 1991
ME UAIRDATA  24128 1991 WINNEMUCCA,NV 40.900 117.800
ME STARTEND 91 1 1  91 12 31
ME WDROTATE 180.0000
ME WINDPROF A 0.07 0.07 0.07 0.07 0.07 0.07
ME WINDPROF B 0.07 0.07 0.07 0.07 0.07 0.07
ME WINDPROF C 0.1 0.1 0.1 0.1 0.1 0.1
ME WINDPROF D 0.15 0.15 0.15 0.15 0.15 0.15
ME WINDPROF E 0.35 0.35 0.35 0.35 0.35 0.35
ME WINDPROF F 0.55 0.55 0.55 0.55 0.55 0.55
ME DTHETADZ A 0 0 0 0 0 0
ME DTHETADZ B 0 0 0 0 0 0
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ME DTHETADZ E 0.02 0.02 0.02 0.02 0.02 0.02
ME DTHETADZ F 0.035 0.035 0.035 0.035 0.035 0.035
ME FINISHED

OU STARTING
OU RECTABLE 1 FIRST
OU POSTFILE 1 DRLPIT1 UNFORM G:®BEEST®GQ®GQHRA.PST 20
OU POSTFILE 1 DRLPIT2 UNFORM G:®BEEST®GQ®GQHRA.PST 20
OU POSTFILE 1 DRLPIT3 UNFORM G:®BEEST®GQ®GQHRA.PST 20
OU POSTFILE 1 DRLPIT4 UNFORM G:®BEEST®GQ®GQHRA.PST 20
OU POSTFILE 1 DRLPIT5 UNFORM G:®BEEST®GQ®GQHRA.PST 20
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OU POSTFILE 1 DRLPIT6 UNFORM G:®BEEST®GQ®GQHRA.PST 20
OU POSTFILE 1 BLSPIT1 UNFORM G:®BEEST®GQ®GQHRA.PST 20
OU POSTFILE 1 BLSPIT2 UNFORM G:®BEEST®GQ®GQHRA.PST 20
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OU POSTFILE 1 TRU_WST1 UNFORM G:®BEEST®GQ®GQHRA.PST 20
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OU PLOTFILE PERIOD HAUL_6 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 BGHSE1 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD BGHSE1 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 TRU_WST1 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD TRU_WST1 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 TRU_WST2 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD TRU_WST2 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 TRU_WST3 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD TRU_WST3 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 TRU_WST4 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD TRU_WST4 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 TRU_WST5 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD TRU_WST5 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 DZG_W1 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD DZG_W1 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 DZG_W2 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD DZG_W2 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 DZG_W3 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD DZG_W3 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 DZG_W4 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD DZG_W4 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 DZG_W5 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD DZG_W5 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 ERSN_W1 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD ERSN_W1 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 ERSN_W2 FIRST G:®BEEST®GQ®GQHRA.GRF 30
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OU PLOTFILE PERIOD ERSN_W2 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 ERSN_W3 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD ERSN_W3 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 ERSN_W4 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD ERSN_W4 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 ERSN_W5 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD ERSN_W5 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 ORE_PAD1 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD ORE_PAD1 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 ORE_PAD2 FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD ORE_PAD2 G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 HGRETORT FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD HGRETORT G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 ADSORPT FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD ADSORPT G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 FURNACE FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD FURNACE G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE 1 DSLTNK FIRST G:®BEEST®GQ®GQHRA.GRF 30
OU PLOTFILE PERIOD DSLTNK G:®BEEST®GQ®GQHRA.GRF 30
OU FINISHED
```

APPENDIX D

Golden Queen Mining

Sample Collection and Analysis Summary

A total of four samples representing the types of overburden material at the site and three samples representing the types of ore material at the site were collected for chemical analysis. the ore material samples were collected from rock outcrops while the overburden material samples were collected from samples of retained drill cuttings which were stored on-site. All samples were collected in canvas bags and the bags labeled with a water proof marker. The samples were then delivered to either McClelland Laboratories, of Sparks, Nevada, or Sierra Environmental Monitoring of Reno, Nevada, for analysis. The samples were analyzed for both total (TTLC) and soluable (STLC) concentrations of CAM 17 Metals. The laboratory analytical results are summarized as follows:

	Basis for Golden Queen		Golden Queen Onsite Sampling REsults						
	Ore	Waste	Rhyolite	Siliceous Pyroclastic	OT-3	RT-1	RT-2	RT-3	RT-4
18540299 Cr 6	5.00E-07	5.00E-07							
7439976 Hg	1.14E-06	3.25E-06	4.30E-07	2.10E-06	9.00E-07	6.90E-06	1.00E-06	9.00E-07	4.20E-06
7782492 Se	1.53E-07	1.88E-07	4.70E-08	1.25E-08	4.00E-07	5.00E-07	1.00E-07	5.00E-08	1.00E-07
7440382 As	4.36E-05	8.53E-05	3.50E-07	5.20E-07	1.30E-04	7.50E-05	1.40E-04	5.00E-05	7.60E-05
7440417 Be	5.14E-05	3.13E-07	7.40E-05	8.00E-05	2.50E-07	2.50E-07	2.50E-07	5.00E-07	2.50E-07
7440439 Cd	1.53E-06	3.08E-06	2.50E-07	1.25E-07	4.20E-06	2.80E-06	5.50E-06	1.50E-06	2.50E-06
7440508 Cu	3.77E-06	7.15E-06	3.20E-06	3.80E-06	4.30E-06	1.00E-05	6.00E-06	5.80E-06	6.80E-06
7439921 Pb	2.97E-05	1.30E-05	2.50E-05	3.20E-06	6.10E-05	8.30E-06	5.50E-06	3.30E-05	5.30E-06
7440020 Ni	2.60E-06	2.28E-06	3.20E-06	1.60E-06	3.00E-06	3.50E-06	1.00E-06	1.00E-06	3.60E-06
7439965 Mn	7.83E-05	7.83E-05							
7440666 Zn	5.73E-06	1.09E-05	6.20E-06	2.00E-06	9.00E-06	1.10E-05	8.20E-06	1.60E-05	8.50E-06

	ORE			WASTE		
	Average	Maximum	Minimum	Average	Maximum	Minimum
18540299 Cr 6						
7439976 Hg	1.14E-06	2.10E-06	4.30E-07	3.25E-06	6.90E-06	9.00E-07
7782492 Se	1.53E-07	4.00E-07	1.25E-08	1.88E-07	5.00E-07	5.00E-08
7440382 As	4.36E-05	1.30E-04	3.50E-07	8.53E-05	1.40E-04	5.00E-05
7440417 Be	5.14E-05	8.00E-05	2.50E-07	3.13E-07	5.00E-07	2.50E-07
7440439 Cd	1.53E-06	4.20E-06	1.25E-07	3.08E-06	5.50E-06	1.50E-06
7440508 Cu	3.77E-06	4.30E-06	3.20E-06	7.15E-06	1.00E-05	5.80E-06
7439921 Pb	2.97E-05	6.10E-05	3.20E-06	1.30E-05	3.30E-05	5.30E-06
7440020 Ni	2.60E-06	3.20E-06	1.60E-06	2.28E-06	3.60E-06	1.00E-06
7439965 Mn						
7440666 Zn	5.73E-06	9.00E-06	2.00E-06	1.09E-05	1.60E-05	8.20E-06

Golden Queen Mining

CONSTITUENT CONCENTRATIONS COMPARED

		RAND LAB TEST	CACTUS Blasthole	CACTUS Crusher	STD HILL
18540299	Cr 6 *	2.50E-07 +	5.00E-07 +	5.00E-07	2.00E-08
7439976	Hg *	1.00E-08	1.38E-06	6.50E-06	2.10E-07
7782492	Se *	1.40E-07	9.00E-07 +	2.50E-07	5.00E-08
7440382	As	1.14E-03	1.65E-03	2.14E-03	1.20E-05
7440417	Be *	1.80E-07 +	2.50E-07	1.09E-06	4.00E-07
7440439	Cd	1.70E-07	4.10E-06	8.38E-06	2.10E-07
7440508	Cu	3.14E-05	9.90E-06	3.67E-05	2.20E-06
7439921	Pb	1.88E-05	3.96E-05	4.05E-05	1.20E-05
7440020	Ni	2.29E-05 +	1.25E-06	5.29E-06	2.00E-06
7439965	Mn	2.50E-04	1.02E-05	7.83E-05	5.95E-04
7440666	Zn	7.36E-05	1.95E-05	2.22E-05	8.50E-05
1175	Sio2	1.21E-01	1.04E-01	8.87E-02	8.60E-02

+ 50% detection limit

		Basis for Golden Queen Ore	Basis for Golden Queen Waste	Golden Queen Onsite Sampling REsults: Rhyolite	Siliceous Pyroclastic	OT-3	RT-1	RT-2	RT-3	RT-4
18540299	Cr 6	5.00E-07	5.00E-07							
7439976	Hg	1.14E-06	3.25E-06	4.30E-07	2.10E-06	9.00E-07	6.90E-06	1.00E-06	9.00E-07	4.20E-06
7782492	Se	1.53E-07	1.88E-07	4.70E-08	1.25E-08	4.00E-07	5.00E-07	1.00E-07	5.00E-08	1.00E-07
7440382	As	4.36E-05	8.53E-05	3.50E-07	5.20E-07	1.30E-04	7.50E-05	1.40E-04	5.00E-05	7.60E-05
7440417	Be	5.14E-05	3.13E-07	7.40E-05	8.00E-05	2.50E-07	2.50E-07	2.50E-07	5.00E-07	2.50E-07
7440439	Cd	1.53E-06	3.08E-06	2.50E-07	1.25E-07	4.20E-06	2.80E-06	5.50E-06	1.50E-06	2.50E-06
7440508	Cu	3.77E-06	7.15E-06	3.20E-06	3.80E-06	4.30E-06	1.00E-05	6.00E-06	5.80E-06	6.80E-06
7439921	Pb	2.97E-05	1.30E-05	2.50E-05	3.20E-06	6.10E-05	8.30E-06	5.50E-06	3.30E-05	5.30E-06
7440020	Ni	2.60E-06	2.28E-06	3.20E-06	1.60E-06	3.00E-06	3.50E-06	1.00E-06	1.00E-06	3.60E-06
7439965	Mn	7.83E-05	7.83E-05							
7440666	Zn	5.73E-06	1.09E-05	6.20E-06	2.00E-06	9.00E-06	1.10E-05	8.20E-06	1.60E-05	8.50E-06

		ORE Average	ORE Maximum	ORE Minimum	WASTE Average	WASTE Maximum	WASTE Minimum
18540299	Cr 6						
7439976	Hg	1.14E-06	2.10E-06	4.30E-07	3.25E-06	6.90E-06	9.00E-07
7782492	Se	1.53E-07	4.00E-07	1.25E-08	1.88E-07	5.00E-07	5.00E-08
7440382	As	4.36E-05	1.30E-04	3.50E-07	8.53E-05	1.40E-04	5.00E-05
7440417	Be	5.14E-05	8.00E-05	2.50E-07	3.13E-07	5.00E-07	2.50E-07
7440439	Cd	1.53E-06	4.20E-06	1.25E-07	3.08E-06	5.50E-06	1.50E-06
7440508	Cu	3.77E-06	4.30E-06	3.20E-06	7.15E-06	1.00E-05	5.80E-06
7439921	Pb	2.97E-05	6.10E-05	3.20E-06	1.30E-05	3.30E-05	5.30E-06
7440020	Ni	2.60E-06	3.20E-06	1.60E-06	2.28E-06	3.60E-06	1.00E-06
7439965	Mn						
7440666	Zn	5.73E-06	9.00E-06	2.00E-06	1.09E-05	1.60E-05	8.20E-06

GOLDEN QUEEN MINING CO., INC. P.O. BOX 878, ROSAMOND, CA 93560-0878

0733.0010

FAX COPY

Date: 8/4/95

Number of pages including cover sheet: 17

To: Dave Weiss & Alan Wagner

Phone:

Fax phone:

CC:

From: LYNNE D. ROSINSKI, Admin.

Phone: (805) 256-0120

Fax phone: (805) 256-6526

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☒ Please comment

This is the report on the test results per our conversation earlier today. Please give Ed or I a call & let us know if this work is sufficient

Thanks

Lynne

Laboratory Analysis Report

PRELIMINARY REPORT

Sierra
Environmental
Monitoring, Inc.

GOLDEN QUEEN MINE
A. WAGGONER-WEI
P.O. BOX 878
ROSAMOND, CA 93560

Date : 8/24/95
Client : GQM-001
Taken by: A. WAGGONER-WEI
Report : 13961
PO# : 257

Sample	Collected Date	Time	ANTIMONY ICP MG/L	ARSENIC AA HYDRIDE MG/L	BARIUM ICP MG/L	BERYLLIUM ICP MG/L	CADMIUM ICP MG/L	CHROMIUM ICP MG/L
GQ-RT-1 - STLC	8/03/95	:	<0.1	0.41	2.8	<0.01	<0.01	0.85
GQ-RT-1 - TTLC	8/03/95	:	5.3 ug/g	75ug/g	67 ug/g	<0.5 ug/g	2.8 ug/g	110 ug/g
GQ-RT-2 - STLC	8/03/95	:	<0.1	3.7	3.1	0.02	0.14	3.1
GQ-RT-2 - TTLC	8/03/95	:	6.6 ug/g	140ug/g	140 ug/g	<0.5 ug/g	5.5 ug/g	120 ug/g
GQ-RT-3 - STLC	8/03/95	:	<0.1	0.23	2.4	<0.01	<0.01	0.34
GQ-RT-3 - TTLC	8/03/95	:	<5 ug/g	50ug/g	82 ug/g	0.5 ug/g	1.5 ug/g	72 ug/g
GQ-RT-4 - STLC	8/03/95	:	<0.1	0.60	4.3	0.02	0.02	3.6
GQ-RT-4 - TTLC	8/03/95	:	6.7 ug/g	76ug/g	180 ug/g	<0.5 ug/g	2.5 ug/g	130 ug/g
GQ-OT-3 - STLC	8/03/95	:	<0.1	2.4	2.4	<0.01	0.06	0.68
GQ-OT-3 - TTLC	8/03/95	:	7.8 ug/g	130ug/g	66 ug/g	<0.5 ug/g	4.2 ug/g	130 ug/g

Sample	Collected Date	Time	COBALT ICP MG/L	COPPER, ICP MG/L	LEAD ICP MG/L	MERCURY AA COLD VAPOR MG/L	MOLYBDENUM ICP MG/L	NICKEL ICP MG/L
GQ-RT-1 - STLC	8/03/95	:	0.03	0.23	0.17	<0.005	<0.1	0.20
GQ-RT-1 - TTLC	8/03/95	:	1.0 ug/g	10 ug/g	8.3 ug/g	6.9ug/g	<25 ug/g	3.5 ug/g
GQ-RT-2 - STLC	8/03/95	:	0.01	0.27	0.12	<0.005	<0.1	0.28
GQ-RT-2 - TTLC	8/03/95	:	<0.5 ug/g	6.0 ug/g	5.5 ug/g	1.0ug/g	<25 ug/g	<2 ug/g
GQ-RT-3 - STLC	8/03/95	:	0.01	0.36	0.12	<0.005	<0.1	0.10
GQ-RT-3 - TTLC	8/03/95	:	0.6 ug/g	5.8 ug/g	33 ug/g	0.9ug/g	<25 ug/g	<2 ug/g
GQ-RT-4 - STLC	8/03/95	:	0.03	0.27	0.11	<0.005	<0.1	0.32
GQ-RT-4 - TTLC	8/03/95	:	<0.5 ug/g	6.8 ug/g	5.3 ug/g	4.2ug/g	<25 ug/g	3.6 ug/g
GQ-OT-3 - STLC	8/03/95	:	<0.01	0.12	0.28	<0.005	<0.1	0.12
GQ-OT-3 - TTLC	8/03/95	:	<0.5 ug/g	4.3 ug/g	61 ug/g	8.9ug/g	<25 ug/g	3.0 ug/g

Sample	Collected Date	Time	SELENIUM AA HYDRIDE MG/L	SILVER ICP MG/L	THALLIUM ICP MG/L	VANADIUM ICP MG/L	ZINC ICP MG/L	NEUTRALIZATION POT. TONS/1000T
GQ-RT-1 - STLC	8/03/95	:	<0.001	<0.02	<0.08	<0.1	1.1	
GQ-RT-1 - TTLC	8/03/95	:	0.5ug/g	2.6 ug/g	25 ug/g	<5 ug/g	11 ug/g	
GQ-RT-1 - AGP/NP	8/03/95	:						1.0
GQ-RT-2 - STLC	8/03/95	:	<0.001	<0.02	0.17	<0.1	1.1	
GQ-RT-2 - TTLC	8/03/95	:	0.1ug/g	2.3 ug/g	40 ug/g	<5 ug/g	8.2 ug/g	
GQ-RT-2 - AGP/NP	8/03/95	:						1.9

Continued on Next Page

Approved By:____________________________

William F. Pillsbury
President

1135 Financial Blvd.
Reno, NV 89502
Phone (702) 857-2400
FAX (702) 857-2404

John C. Seher
Manager

Laboratory
Analysis Report
PRELIMINARY REPORT

Sierra
Environmental
Monitoring, Inc.

GOLDEN QUEEN MINE
A. WAGGONER-WSI
P.O. BOX 878
ROSAMUND, CA 93560

Date : 8/24/95
Client : GQM-001
Taken by: A. WAGGONER-WSI
Report : 13961
PO# : 257

Sample	Collected Date	Time	SELENIUM AA HYDRIDE MG/L	SILVER ICP MG/L	THALLIUM ICP MG/L	VANADIUM ICP MG/L	ZINC ICP MG/L	NEUTRALIZATION POT. TONS/1000T
GQ-RT-3 - STLC	8/03/95	:	<0.001	<0.02	0.21	<0.1	1.4	
GQ-RT-3 - TTLC	8/03/95	:	<0.1ug/g	1.2 ug/g	39 ug/g	<5 ug/g	16 ug/g	
GQ-RT-3 - AGP/NP	8/03/95	:						0.9
GQ-RT-4 - STLC	8/03/95	:	<0.001	<0.02	0.20	<0.1	1.2	
GQ-RT-4 - TTLC	8/03/95	:	0.1ug/g	<1 ug/g	23 ug/g	<5 ug/g	8.5 ug/g	
GQ-RT-4 AGP/NP	8/03/95	:						0.1
GQ-OT-3 - STLC	8/03/95	:	<0.001	<0.02	<0.08	<0.1	1.3	
GQ-OT-3 - TTLC	8/03/95	:	0.4ug/g	21 ug/g	17 ug/g	<5 ug/g	9.0 ug/g	
GQ-OT-3 - AGP/NP	8/03/95	:						2.1

Sample	Collected Date	Time	ACID GEN. POTENTIAL TONS/1000T	DIGESTION-TOTAL METALS	ACID GEN. & POTEN. SULFIDE TONS/1000T	STLC EXTRACT	PH-SATUR PASTE S.U.	
GQ-RT-1 - STLC	8/03/95	:				YES		
GQ-RT-1 - TTLC	8/03/95	:		YES				
GQ-RT-1 - AGP/NP	8/03/95	:					5.97	
GQ-RT-2 - STLC	8/03/95	:				YES		
GQ-RT-2 - TTLC	8/03/95	:		YES				
GQ-RT-2 - AGP/NP	8/03/95	:					7.16	
GQ-RT-3 - STLC	8/03/95	:				YES		
GQ-RT-3 - TTLC	8/03/95	:		YES				
GQ-RT-3 - AGP/NP	8/03/95	:					5.04	
GQ-RT-4 - STLC	8/03/95	:				YES		
GQ-RT-4 - TTLC	8/03/95	:		YES				
GQ-RT-4 - AGP/NP	8/03/95	:					6.12	
GQ-OT-3 - STLC	8/03/95	:				YES		
GQ-OT-3 - TTLC	8/03/95	:		YES				
GQ-OT-3 - AGP/NP	8/03/95	:					7.11	

Approved By: ______________________

William F. Pillsbury
President

1135 Financial Blvd.
Reno, NV 89502
Phone (702) 857-2400
FAX (702) 857-2404

John C. Seher
Manager

McCLELLAND LABORATORIES, INC.

1016 Greg Street, Sparks, Nevada 89431 702 / 356-1300
FAX 702 / 356-8917

December 19, 1990

RECEIVED
AUG 03 1995

Mr. Paul Chamberlin
Chamberlin & Associates, Inc.
7463 West Otero Place
Littleton, CO 80123

Dear Paul:

Enclosed is our report concerning environmental detoxification washing results for the Soledad Mountain bulk ore samples. This is an addendum to our final metallurgical report dated July 18, 1990.

I apologize for the delay in providing this report.

Sincerely,

Jack S. McPartland
Metallurgist

JSM:aah
Enclosure

In association with H.J. Heinen and R.E. Lindstrom

McCLELLAND LABORATORIES, INC.

1016 Greg Street, Sparks, Nevada 89431 702 / 356-1300
FAX 702 / 356-8917

Report
on
Detoxification Washing - Soledad Mountain Column Leached Residues
MLI Job No. 1389, C.O. #1
December 7, 1990

for

Mr. Paul Chamberlin
Chamberlin and Associates, Inc.
7463 West Otero Place
Littleton, CO 80123

DETOXIFICATION PROCEDURES AND RESULTS

Detailed detoxification washing and sampling for environmental analyses were performed on select column leached residues from the cyanidation testing program described in the MLI report dated July 18, 1990. Column residues from the two Polycom grinding test composites were washed in the leaching columns with fresh Reno tap water (approximately pH 7) for 20 days to determine cyanide compound detoxification rates. Wash water was applied at the same rate used for leaching (0.005 gpm/ft^2) for the first 19 days. Application rate was doubled (0.010 gpm/ft^2) on the final day of washing. Each days' wash effluent volume was measured, and sampled for Au, Ag, pH, and free cyanide analysis (in-house). A 1 liter volume of each effluent was preserved by adjusting the pH to above 12.0 with NaOH, and was submitted to High Desert Laboratories (HDL) for total, WAD, and free cyanide analyses. HDL is an analytical laboratory, based in Sparks, Nevada, which participates in the Water Supply and Water Pollution Performance Evaluation Study Programs that are conducted by the Environmental Monitoring Systems Laboratory of the USEPA.

Immediately after each leached residue was removed from the column, a moist sample was taken for the CAM-WET analysis for Total Threshold Limit Concentration (TTLC) values, and Soluble Threshold Limit Concentration (STLC) values with citric acid extract. Moist samples were also taken for total, WAD, and free cyanide analyses, all performed by HDL. After each residue was air dried, an additional sample was taken and was submitted to HDL for acid generation potential/acid neutralization potential (AGP/ANP) analysis.

Wash effluent analytical results for total, WAD, and free cyanide are provided along with effluent pH data in Tables 1 and 2. Analytical results for CAM-WET tests performed on leached residues are shown in Tables 3 and 4.

Results from cyanide analyses of leached residues are presented in Table 5. Results from AGP/ANP tests and original analytical reports (HDL) are provided in the Appendix to this report.

Table 1. - Cyanide Detoxification Data, Column Leach Test, Polycom Grinding Test Product Rhyolite Composite

Wash Time, Days	Effluent Analysis			
	pH	Cyanide, mg/l		
		Total	WAD	Free
1	11.6	114	111	127
2	11.5	30	22	31
3	11.4	8.9	8.0	9.8
4	11.0	4.7	4.1	4.8
5	11.6	2.2	1.7	2.5
6	11.4	1.1	1.1	0.92
7	11.2	0.63	0.56	0.51
8	11.3	0.37	0.35	0.36
9	11.1	0.26	0.27	0.33
10	11.0	0.22	0.21	0.29
11	10.9	0.56	0.51	0.77
12	10.6	2.9	2.6	3.2
13	10.2	3.7	3.1	3.5
14	10.3	1.3	1.1	1.4
15	10.3	0.68	0.65	0.78
16	10.8	0.37	0.37	0.46
17	10.5	3.6	3.9	4.1
18	10.6	9.1	9.0	11
19	10.5	1.4	1.3	1.5
20	10.4	1.2	1.2	1.3

Table 2. - Cyanide Detoxification Data, Column Leach Test, Polycom Grinding Test Product Siliceous Pyroclastic Composite

Wash Time, Days	Effluent Analysis			
		Cyanide, mg/l		
	pH	Total	WAD	Free
1	11.1	147	113	129
2	10.8	44	34	46
3	10.6	11	9.3	9.7
4	10.9	3.4	2.7	2.7
5	10.9	1.8	1.4	1.4
6	10.6	1.1	1.1	1.1
7	10.7	0.90	0.80	0.76
8	10.7	0.69	0.55	0.52
9	10.3	0.75	0.56	0.74
10	10.3	0.54	0.54	0.61
11	10.5	0.65	0.60	0.61
12	10.5	0.44	0.36	0.46
13	9.9	0.72	0.67	0.79
14	10.2	0.75	0.77	1.5
15	10.2	0.57	0.57	0.81
16	10.7	1.0	0.91	1.1
17	10.4	1.5	1.7	1.8
18	10.5	3.4	3.2	3.6
19	9.8	8.1	7.9	9.7
20	10.3	2.2	2.1	2.4

Mr. Paul Chamberlin/Chamberlin & Associates, Inc.
MLI Job No. 1389, C.O. #1 - December 7, 1990

Figure 1. — Detoxification Profiles,

Water Wash, Rhyolite Leached Residue

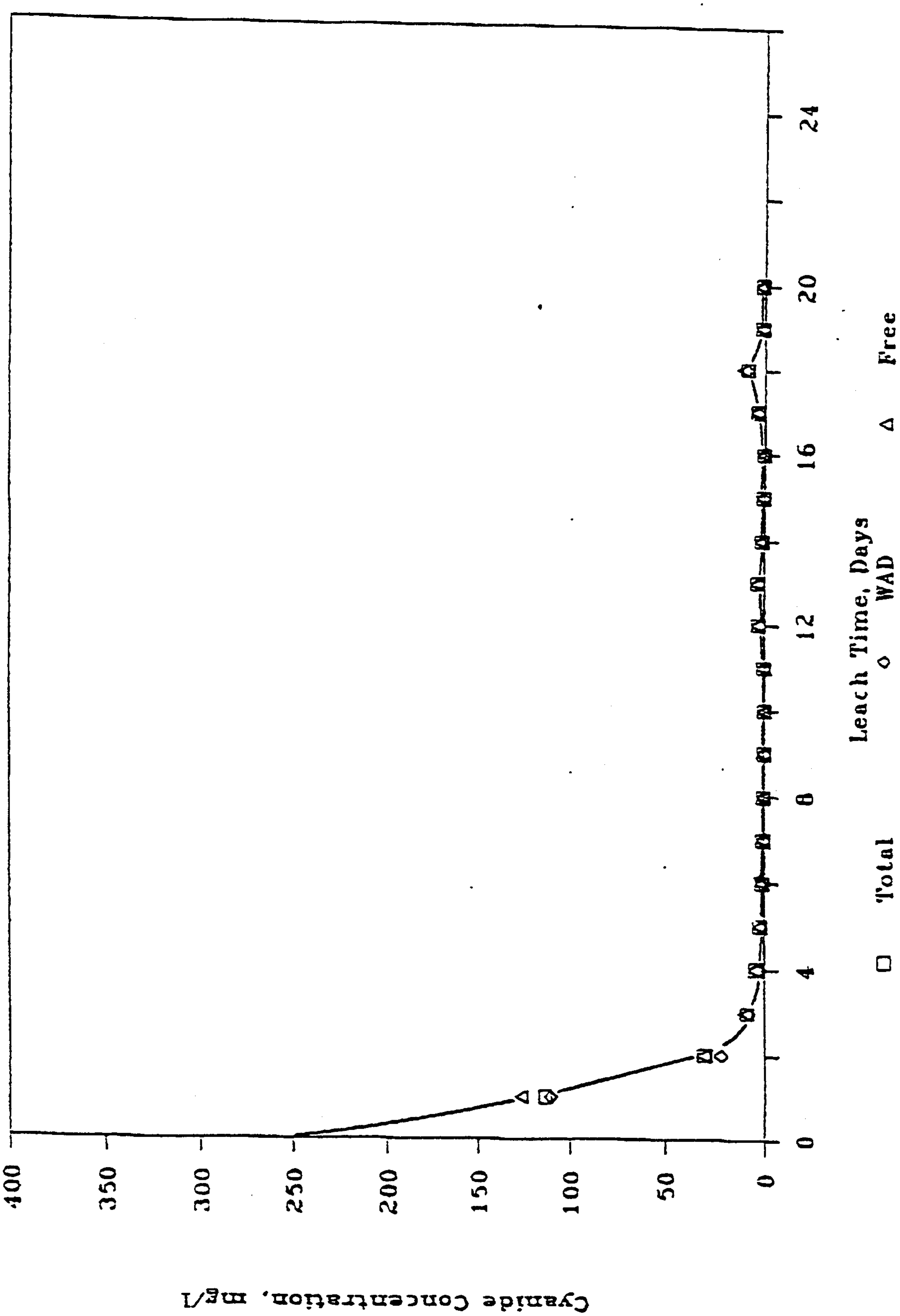
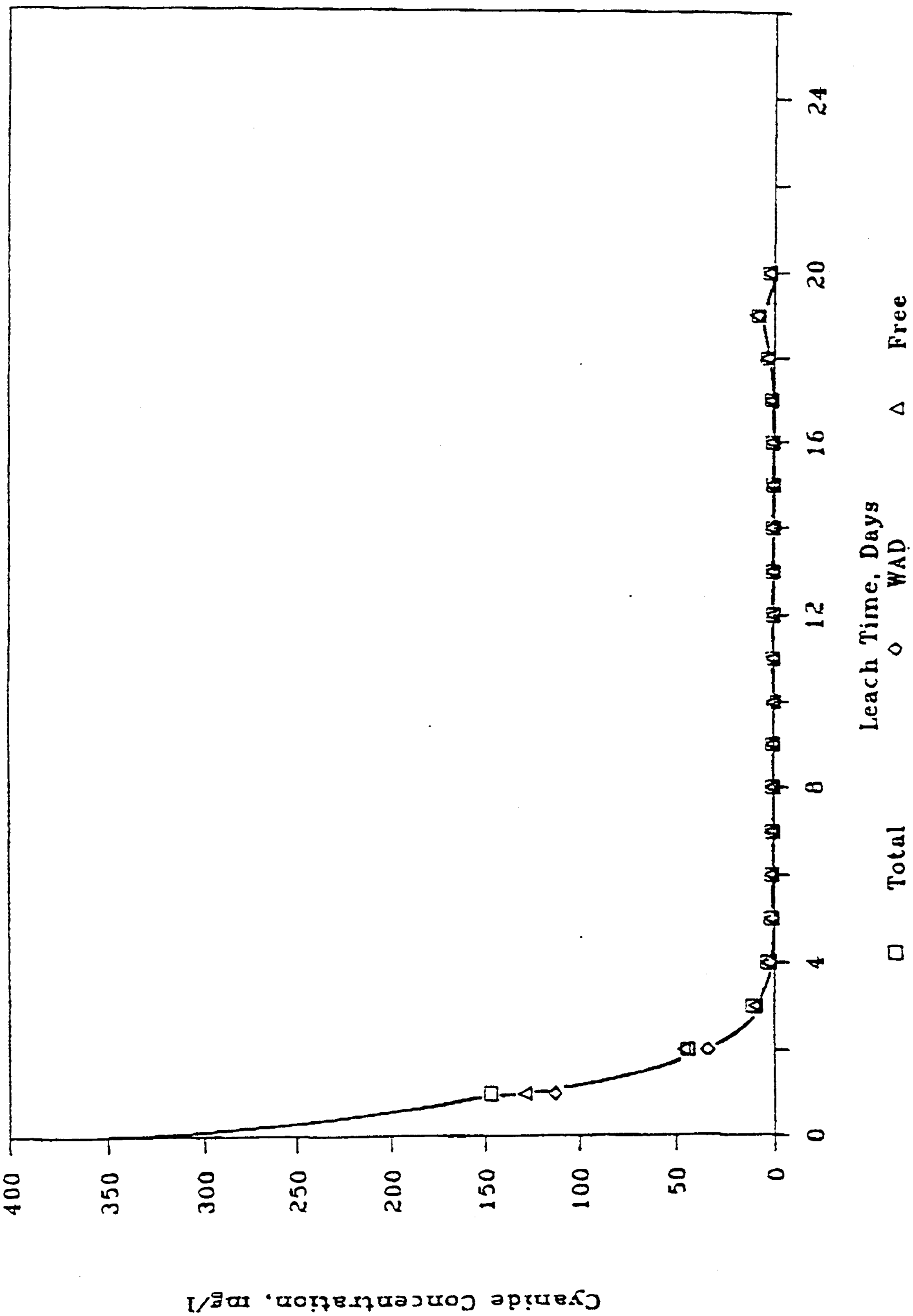


Figure 2. - Detoxification Profiles,
Water Wash, SP Leached Residue



Mr. Paul Chamberlin/Chamberlin & Associates, Inc.
MLI Job No. 1389, C.O. #1 - December 7, 1990

Table 3. - Analytical Results, CAM-WET Tests, Polycom Grinding Test Product Rhyolite Composite

Results	TTLC mg/kg	Total Content mg/kg	STLC mg/l	Extract Content mg/l
Sb	500	<6.3	15	<1
As	500	0.35	5	0.11
Ba	10,000	250	100	32
Be	75	74	0.75	<0.5
Cd	100	<0.25	1.0	<0.02
Cr	2,500	2.7	560	0.15
Co	8,000	<6.3	80	<1.0
Cu	2,500	3.2	25	<0.1
Pb	1,000	25	5	<0.1
Hg	20	0.43	0.2	0.005
Mo	3,500	1,241	350	<1.0
Ni	2,000	<3.2	20	<0.5
Se	100	0.047	1.0	<0.005
Ag	500	4.0	5	<0.02
Tl	700	78	7.0	<0.5
V	2,400	147	24	<2.0
Zn	5,000	6.2	250	0.12
F	18,000	<2.5	180	0.72

Table 4. - Analytical Results, CAM-WET Tests, Polycom Grinding Test Product Siliceous Pyroclastic Composite

Results	TTLC mg/kg	Total Content mg/kg	STLC mg/l	Extract Content mg/l
Sb	500	<6.3	15	<1.0
As	500	0.52	5	0.088
Ba	10,000	234	100	48
Be	75	80	0.75	<0.5
Cd	100	<0.25	1.0	<0.02
Cr	2,500	1.1	560	0.15
Co	8,000	<3.2	80	<0.5
Cu	2,500	3.8	25	<0.1
Pb	1,000	3.2	5	0.16
Hg	20	2.1	0.2	0.006
Mo	3,500	2,022	350	<1.0
Ni	2,000	<3.2	20	<0.5
Se	100	<0.025	1.0	<0.005
Ag	500	3.2	5	<0.02
Tl	700	94	7.0	<0.5
V	2,400	167	24	<2.0
Zn	5,000	2.0	250	0.20
F	18,000	<2.5	180	1.4

Table 5. - Cyanide Content, Leached/Washed Residues, Polycom Grinding Test Product Composites

	Composite	
Cyanide, mg/kg	Rhyolite	Siliceous Pyroclastic
Total	0.71	1.8
WAD	0.46	0.72
Free	0.16	0.25

Detoxification results show that water washing was effective in decreasing average total cyanide from approximately 300 mg/l to 1.7 mg/l in 20 days of washing. WAD cyanide analytical procedures are considered more reliable than those for total or free cyanide.

Free cyanide analysis is considered to be the most subject to matrix interferences of the three analyses. Consequently, WAD cyanide detoxification rates will be discussed in more detail. WAD cyanide concentrations for the Rhyolite residue decreased from about 250 mg/l to as low as 0.21 mg/l with 20 days of water washing. Although the final wash effluent WAD cyanide concentration was 1.2 mg/l, it is felt that, with a sufficiently long water wash cycle, effluent WAD cyanide concentrations would be below the allowable 0.20 mg/l limit.

WAD cyanide concentrations for the SP residue decreased from about 350 mg/l to as low as 0.36 mg/l with 20 days of water washing. Final wash effluent WAD cyanide concentration was higher at 2.1 mg/l. Again however, it is felt that, with a slightly longer water wash cycle, effluent WAD cyanide concentrations would be within acceptable limits.

Results from CAM-WET analyses show the extracts for both leached/washed residues met allowable limits for all elements evaluated, except for TTLC values for beryllium from the SP residue. Total berylium concentration in the SP residue was 80 mg/kg, which is above the allowable TTLC limit of 75 mg/kg. Total beryllium concentration of 74 mg/kg in the Rhyolite leached residue was near the allowable limit. Citric acid extracts (STLC) for both residues contained no detectable beryllium (<0.50 mg/kg). Both leached/washed residues contained below 2 mg/kg total cyanide.

Both leached/washed residues displayed a net acid neutralization potential.

Jack S. McPartland

Jack S. McPartland
Metallurgist

APPENDIX

HIGH DESERT LABORATORIES INCORPORATED

Client: McClelland Laboratories, Incorporated
Address: 1016 Greg Street
Sparks, Nevada 89431
Phone: 356-1300
Dates Sampled: Unknown Dates Submitted: Various
Client Reference: Project 1389, Solution Samples as Below.
Laboratory Reference Number: Various.
Analysis Performed: Dissolved Oxygen.

Sample Identifier	Dissolved Oxygen, as mg O2/L
389-1403	16
389-1404	16
389-1405	21
389-1410	5.9
389-1411	7.9
389-1412	9.9
389-1401	5.9
389-1402	3.9
389-1403	3.9
389-1404	3.9
389-1405	27
389-1406	8.9
389-1418	7.9

Analysis By: Hlubucek/Sharp

Approved By: C.W. Sharp Date: 6/13/80

Laboratory Report Number 580

325 Freeport Blvd., Sparks, Nevada 89431
P.O. Box 6535, Reno, Nevada 89513 (702) 359-0330

HIGH DESERT LABORATORIES INCORPORATED

Client: McClelland Laboratories, Incorporated
Address: 1016 Greg Street
Sparks, Nevada 89431
Phone: 356-1300
Dates Sampled: Various Dates Submitted: Various
Client Reference: Project 1389, 700 Series Wash Solutions.
Laboratory Reference Numbers: Various.
Analysis Performed: Free Cyanide, Weak Acid Dissociable Cyanide, and Total Cyanide.

Sample Identifier	Free CN, mg/L	WAD CN, mg/L	Total CN, mg/L
389-753, #1	127	111	114
389-754, #2	31	22	30
389-755, #3	9.8	8.0	8.9
389-756, #4	4.8	4.1	4.4
389-757, #5	2.5(2.3)	1.7	2.2
389-758, #6	0.92	1.1	1.1
389-759, #7	0.51	0.56	0.63
389-760, #8	0.36	0.35	0.37
389-761, #9	0.33	0.27	0.26
389-762, #10	0.29	0.21	0.22
389-764	3.2	2.6	2.9
389-765	3.5	3.1	3.7

Note:
Replicate analysis is shown in parenthesis.

Analysis By: Hlubucek/Sharp
Approved By: C.W. Sharp Date: 6/26/90
Laboratory Report Number 599
Page 1 of 2.

HIGH DESERT LABORATORIES INCORPORATED

Client: McClelland Laboratories, Incorporated
Address: 1016 Greg Street
Sparks, Nevada 89431
Phone: 356-1300
Dates Sampled: Various Dates Submitted: Various
Client Reference: Project 1389, 800 Series Wash Solutions.
Laboratory Reference Numbers: Various.
Analysis Performed: Free Cyanide, Weak Acid Dissociable Cyanide, and Total Cyanide.

Sample Identifier	Free CN, mg/L	WAD CN, mg/L	Total CN, mg/L
389-842, #1	129	113(113)	147(132)
389-843, #2	46	34	44
389-844, #3	9.7	9.3	11
389-845, #4	2.7	2.7	3.4
389-846, #5	1.4	1.4	1.8
389-847, #6	1.1	1.1	1.1
389-848, #7	0.76	0.80	0.90
389-849, #8	0.52	0.55	0.69
389-850, #9	0.74	0.56	0.75
389-851, #10	0.61	0.54	0.54
389-852	0.46	0.36	0.44
389-853	0.79	0.67	0.72

Note:
Replicate analysis are shown in parenthesis.

Analysis By: Hlubucek/Sharp

Approved By: C. W. Sharp Date: 6/26/90

Laboratory Report Number 590
Page 2 of 2.

HIGH [illegible] LABORATORIES INCORPORATED

Client: McClelland Laboratories, Incorporated
Address: 1016 Greg Street
Sparks, Nevada 89431
Phone: 356-1300
Date Sampled: Unknown Date Submitted: 7/16/90
Client Reference: Project 1389-P7.
Laboratory Reference Number: 90-888.
Analysis Performed: CAM-WET Test as Soluble Threshold Limit Concentrations (STLC) and Total Threshold Limit Concentrations (TTLC).
Rhyolite

Analysis	STLC, mg/L	TTLC, mg/Kg
Antimony	<1.0	<6.3
Arsenic	0.11	0.35
Barium	32	250
Beryllium	<0.5	74
Cadmium	<0.02	<0.25
Chromium	0.15	2.7
Cobalt	<1.0	<6.3
Copper	<0.1	3.2
Fluoride	0.72	<2.5
Lead	<0.1	25
Mercury	0.005	0.43
Molybdenum	<1.0	1,241
Nickel	<0.5	<3.2
Selenium	<0.005	0.047
Silver	<0.02	4.0
Thallium	<0.5	78
Vanadium	<2.0	147
Zinc	0.12	6.2

Note:
1) Results reported on a wet weight basis.
2) STLC and TTLC extractions performed as described in Article 11, Criteria for Identification of Hazardous and Extremely Hazardous Wastes, Title 22, Environmental Health, California Register 85, Number 2--1-12-85.

Analysis By: Hlubucek/Sharp

Approved By: C.W. Sharp Date: 7/30/90

Laboratory Report Number 635
Page 1 of 4.

325 Freeport Blvd., Sparks, Nevada 89431
P.O. Box 6535, Reno, Nevada 89513 (702) 359-0330

HIGH DESERT LABORATORIES INCORPORATED

Client: McClelland Laboratories, Incorporated
Address: 1016 Greg Street
Sparks, Nevada 89431
Phone: 356-1300
Date Sampled: Unknown Date Submitted: 7/16/90
Client Reference: Project 1389-P7.
Laboratory Reference Numbers: 90-888.
Analysis Performed: Total Cyanide, Weak Acid Dissociable Cyanide and Free Cyanide.
Rhyolite

Analysis	Result
Total Cyanide, mg/Kg	0.78(0.71)
WAD Cyanide, mg/Kg	0.46
Free Cyanide, mg/Kg	0.16

NOTE:
1) Results reported on a wet weight basis.
2) Free Cyanide analysis performed on a water soluble extract.
3) Replicate analysis is shown in parenthesis.

Analysis By: Hlubucek/Sharp

Approved By: C.W. Sharp Date: 7/30/90

Laboratory Report Number 635
Page 2 of 4.

325 Freeport Blvd., Sparks, Nevada 89431
P.O. Box 6535, Reno, Nevada 89513 (702) 359-0330

HIGH[illegible] LABOR[illegible]
INCORPORATED

Client: McClelland Laboratories, Incorporated
Address: 1016 Greg Street
Sparks, Nevada 89431
Phone: 356-1300
Date Sampled: Unknown Date Submitted: 7/16/90
Client Reference: Project 1389-P8.
Laboratory Reference Number: 90-889.
Analysis Performed: CAM-WET Test as Soluble Threshold Limit Concentrations (STLC) and Total Threshold Limit Concentrations (TTLC).
Siliceous Pyroclastic

Analysis	STLC, mg/L	TTLC, mg/Kg
Antimony	<1.0	<6.3
Arsenic	0.088	0.52
Barium	48	234
Beryllium	<0.5	80
Cadmium	<0.02	<0.25
Chromium	0.15	1.1
Cobalt	<0.5	<3.2
Copper	<0.1	3.8
Fluoride	1.4	<2.5
Lead	0.16	3.2
Mercury	0.006	2.1
Molybdenum	<1.0	2,022
Nickel	<0.5	<3.2
Selenium	<0.005	<0.025
Silver	<0.02	3.2
Thallium	<0.5	94
Vanadium	<2.0	167
Zinc	0.20	2.0

Note:
1) Results reported on a wet weight basis.
2) STLC and TTLC extractions performed as described in Article 11, Criteria for Identification of Hazardous and Extremely Hazardous Wastes, Title 22, Environmental Health, California Register 85, Number 2--1-12-85.

Analysis By: Hlubucek/Sharp
Approved By: C. W. Sharp Date: 7/30/90
Laboratory Report Number 635
Page 3 of 4.

325 Freeport Blvd., Sparks, Nevada 89431 (702) 359-0330
P.O. Box 6535, Reno, Nevada 89513

APPENDIX E

Estimated Blasting Emissions

Calculated pursuant to AP-42, table 11.9-2 revised 9/88 as corrected per discussion w EPA.

Lbs (TSP) = 0.000014*A^1.5: where A = horizontal area of blast in ft2

Average Holes per Blast =	200			
Sq Ft affected per hole =	387	(19.68 x 19.68 blast pattern)		
Total Sq Ft per blast =	77,400			
PM10 fraction =	0.52			
Tons per hole =	572.8			
Annual Ore Production, MMTPY	6			
Annual Overburden, MMTPY	24	0.7 BLASTS PER DAY		
Estimate number of holes and blasts	Ore	Overburden	Total	
# Holes	10500	41900	52400	
# Blasts per Year	53	210	263	

PM10	Blasting per year	8310	Ore
		32920	Overburden
		41230	Total
PM10	Max Hourly assuming 1 blast per hour	157	

Emmitent ID		Ore LAB TEST	Overburden LAB TEST	LB/HR	Ore LB/YR	Overburden LB/YR	Total LB/YR
18540299	Cr 6	5.000E-07	5.000E-07	7.850E-05	4.155E-03	1.646E-02	2.062E-02
7439976	Hg	1.143E-06	3.250E-06	1.795E-04	9.501E-03	1.070E-01	1.165E-01
7782492	Se	1.532E-07	1.875E-07	2.405E-05	1.273E-03	6.173E-03	7.445E-03
7440382	As	4.362E-05	8.525E-05	6.849E-03	3.625E-01	2.806E+00	3.169E+00
7440417	Be	5.142E-05	3.125E-07	8.072E-03	4.273E-01	1.029E-02	4.376E-01
7440439	Cd	1.525E-06	3.075E-06	2.394E-04	1.267E-02	1.012E-01	1.139E-01
7440508	Cu	3.767E-06	7.150E-06	5.914E-04	3.130E-02	2.354E-01	2.667E-01
7439921	Pb	2.973E-05	1.303E-05	4.668E-03	2.471E-01	4.288E-01	6.759E-01
7440020	Ni	2.600E-06	2.275E-06	4.082E-04	2.161E-02	7.489E-02	9.650E-02
7439965	Mn	7.830E-05	7.830E-05	1.229E-02	6.507E-01	2.578E+00	3.228E+00
7440666	Zn	5.733E-06	1.093E-05	9.001E-04	4.764E-02	3.597E-01	4.073E-01

ID#	SUBSTANCE	LB/HR	Ore LB/YR	Overburden LB/YR	Total LB/YR
18540299	Cr 6 *	7.850E-05	4.155E-03	1.646E-02	2.062E-02
7439976	Hg *	1.795E-04	9.501E-03	1.070E-01	1.165E-01
7782492	Se *	2.405E-05	1.273E-03	6.173E-03	7.445E-03
7440382	As	6.849E-03	3.625E-01	2.806E+00	3.169E+00
7440417	Be *	8.072E-03	4.273E-01	1.029E-02	4.376E-01
7440439	Cd	2.394E-04	1.267E-02	1.012E-01	1.139E-01
7440508	Cu	5.914E-04	3.130E-02	2.354E-01	2.667E-01
7439921	Pb *	4.668E-03	2.471E-01	4.288E-01	6.759E-01
7440020	Ni	4.082E-04	2.161E-02	7.489E-02	9.650E-02
7439965	Mn	0.01	6.507E-01	2.578E+00	3.228E+00
7440666	Zn	9.001E-04	4.764E-02	3.597E-01	4.073E-01

GOLDEN QUEEN MINING COMPANY

Estimated Conveyor Emissions

Emissions have been estimated for the conveyor system from the crusher to the agglomerator using an emission factor from AP-42 Table 11.24-2 (1/95). The PM10 emission factor for high moisture ore is 0.004 lb/ton/transfer point. Fugitive emissions from the conveyor will be controlled with baghouses. A control efficiency of 99% and 49 transfer points has been assumed. Based on the exhibit attached, the average transfer point will process 449 tph.

Emissions are calculated as follows:

Lb/Yr = Ton/Yr X EF(lb/ton) X (1-CE)

Lb/hr = Ton/hr X EF(lb/ton) X (1-CE)

PM10 EF	0.004
TSP EF	0.01

Tons Transferred		PM10	Transfer	Control	PM10	PM10
Ton/Hr	Ton/Yr	lb/ton	Points		lb/hr	lb/yr
449.00	2993333	0.004	47	99.00%	0.844	5627

Emmitent		WT. FRAC.		LB/HR	LB/YR
18540299	Cr 6	5.000E-07		4.22E-07	2.81E-03
7439976	Hg	1.143E-06		9.65E-07	6.43E-03
7782492	Se	1.532E-07		1.29E-07	8.62E-04
7440382	As	4.362E-05		3.68E-05	2.45E-01
7440417	Be	5.142E-05		4.34E-05	2.89E-01
7440439	Cd	1.525E-06		1.29E-06	8.58E-03
7440508	Cu	3.767E-06		3.18E-06	2.12E-02
7439921	Pb	2.973E-05		2.51E-05	1.67E-01
7440020	Ni	2.600E-06		2.19E-06	1.46E-02
7439965	Mn	7.830E-05		6.61E-05	4.41E-01
7440666	Zn	5.733E-06		4.84E-06	3.23E-02

Estimated Crushing Emissions

Emission factors for high moisture ore from AP-42, section 11.24. (Water is added at crushers)

From section 11.24 page 1:

The emission factors in Tables 11.24-1 and 11.24-2 are for the process operations as a whole.
At most metallic mineral processing plants, each process operation requires several types of equipment.
A single crushing operation likely includes a hopper or ore dump, screen(s), crusher, surge bin, apron feed conveyor belt transfer points. Emissions from these various pieces of equipment are often ducted to a singl device. The emissions factors provided in Tables 11.24-1 and 11.24-2 for primary, secondary, and tertiary operations are for process units that are typical arrangements of the above equipment."

Therefore, all transfer points within the plant are assumed to be included in the crushing emission factors.

Primary crusher is controlled by water spray

Secondary and tertiary crushers are controlled by baghouses

Hours of operation per year 7100

Emission Factor	PM10	TSP	tons/year	Tons/hour
Primary	0.009	0.02	6000000	900
Secondary	0.02	0.05	6000000	900
Tertiary (cone)	0.02	0.06	5035000	755
Tertiary (VSI)	0.02	0.06	9720000	1458

Water Spray Control Efficiency = 90%

Baghouse Control Efficiency = 99.0%

CRUSHING	Factor lb/ton	Uncontl PM10/Yr	Controlled PM10/Yr	Controlled PM10/Hr
Primary	0.009	54000	5400	0.810
Secondary *	0.02	120000	1200	0.180
Tertiary (cone)	0.02	100700	1007	0.151
Tertiary (VSI)	0.02	194400	1944	0.292
Total			9551	1.43

* Value determined from ratio of PM to PM10 from tertiary crusher.

Controlled Emissions/Yr = Ton/year X Factor X (1-CE)

Substance		Wt. Fraction		Lb/Hr	Lb/Yr
18540299	Cr 6	5.000E-07		7.16E-07	4.78E-03
7439976	Hg	1.143E-06		1.64E-06	1.09E-02
7782492	Se	1.532E-07		2.19E-07	1.46E-03
7440382	As	4.362E-05		6.25E-05	4.17E-01
7440417	Be	5.142E-05		7.37E-05	4.91E-01
7440439	Cd	1.525E-06		2.18E-06	1.46E-02
7440508	Cu	3.767E-06		5.40E-06	3.60E-02
7439921	Pb	2.973E-05		4.26E-05	2.84E-01
7440020	Ni	2.600E-06		3.72E-06	2.48E-02
7439965	Mn	7.830E-05		1.12E-04	7.48E-01
7440666	Zn	5.733E-06		8.21E-06	5.48E-02

:timated Diesel tank emissions
ROGRAM FILE NAME: FIXTANK

FIXED ROOF TANKS, CALCULATIONS AND REPORTING DATA

COMPANY GOLDEN QUEEN MINING COMPANY

ID#	DEVICE#	TANK NAME	TANK CONTEN	TANK PERMIT#	TANK TEMP, F	TANK HEIGHT,ft	TANK ST DIA ft	TANK LE describe if	MOL. WT OF STOR	TANK CA barrels	VAPOR MW
el	---	DSL ENG	DIESEL	______	65	16	0.25	______	170	476	130

TVP psia	TANK DI FT	AVG VAP SPACE H	AVG DIU TEMP, F	PAINT factor,F	SM TANK ADJ, C	Crude=.65 Organic=1 BREATH KB	TANK TH BBL/D	TURNOV KN	Organic=1 WORK P KW	EFFIC. FACTOR	IF FIX LEVEL TANK, IN (no wk losses)
0.009	10	3	25	1.33	0.519882	1	266.9	0.31	1	0	0

LOSSES br. LB/YR	LOSSES wk. LB/YR	TOTAL L LB/YR	STACK EXHAUST VALUES CFM	FPM
6.24	35.98984116	42.23	0.387	7.885

Toxic Component Columns

OXIC #1 ame	TX1 fract.	TX1 MW	TX1 v.pre at tank te	mole fract. of TX1 in li	mole fract of TX1 in vapor	wt fract of liq in vapo	wt fract T in vapor	wt fract T in org. vap	WK LOSS EMISSIO TX1, LB/Y	BR LOSS EMISSIO TX1, LB/Y	WK LOSS EMISSIO TX1, LB/H	BR LOSS EMISS TX1, LB/H
enzene	0.00000	78	1.02187	0	0	0.00275	0.00000	2.02E-04	7.27E-03	1.26E-03	8.30E-07	1.44E-07

OXIC #2 ame	TX2 fract.	TX2 MW	TX2 v.pre at tank te	mole fract. of TX2 in li	mole fract of TX2 in vapor	wt fract of liq in vapo	wt fract T in vapor	wt fract T in org. vap	WK LOSS EMISSIO TX2, LB/Y	BR LOSS EMISSIO TX2, LB/Y	WK LOSS EMISSIO TX2, LB/H	BR LOSS EMISS TX2, LB/H
oluene	0.00000	92	0.37117	0.00	0	0.00275	0.00000	1.35E-04	4.86E-03	8.42E-04	5.54E-07	9.61E-08

TOXIC #3 lame	TX3 fract.	TX3 MW	TX3 v.pre at tank te	mole fract. of TX3 in li	mole fract of TX3 in vapor	wt fract of liq in vapo	wt fract T in vapor	wt fract T in org. vap	WK LOSS EMISSIO TX3, LB/Y	BR LOSS EMISSIO TX3, LB/Y	WK LOSS EMISSIO TX3, LB/H	BR LOSS EMISS TX3, LB/H
cylene	0.00000	106	0.08595	0.00	0	0.00275	0.00000	9.03E-05	3.25E-03	5.64E-04	3.71E-07	6.44E-08

Calculations are based on AP-42
AB2588 toxics programming is based on the
Technical Guidance Document to the
Criteria and Guidelines Regulation
for AB2588, August 1989
and physical properties of the individual
toxics selected for the program

Estimated Dozing Emissions

Emissions from dozing were calculated using AP-42, table 11.9-2, bulldozing overburden

PM10 (Lb/Hr) = 1.0(s)^1.5/M^1.4*0.75

TSP(Lb/Hr) = 5.7(s)^1.2/M^1.3

s=silt content	3.25%	average per applicant
M=moisture content	3.00%	average per applicant

Assume dozer operates 30 sec. per 100 tons of overburden.

Proposed # of dozers		2
PM10	Lb/Hr Ore	0
	Max Lb/Hr Overburden	1.888

Dozer hours = tons/year x 30 sec/100 tons x 1/3600 sec/hour

Dozer Hours - Overburden		2000	Hours/Year
PM10	Lb/Yr from Ore	0	
PM10	Lb/Yr from Overburden	1887.8	

		ORE	WASTE	ORE		WASTE	
	Dozing - Ore	LAB TEST	LAB TEST	LB/HR	LB/YR	LB/HR	LB/YR
1.9E+07	Cr 6	5.0000E-07	5.0000E-07	0.000E+00	0.000E+00	9.439E-07	9.439E-04
7439976	Hg	1.1433E-06	3.2500E-06	0.000E+00	0.000E+00	6.135E-06	6.135E-03
7782492	Se	1.5317E-07	1.8750E-07	0.000E+00	0.000E+00	3.540E-07	3.540E-04
7440382	As	4.3623E-05	8.5250E-05	0.000E+00	0.000E+00	1.609E-04	1.609E-01
7440417	Be	5.1417E-05	3.1250E-07	0.000E+00	0.000E+00	5.899E-07	5.899E-04
7440439	Cd	1.5250E-06	3.0750E-06	0.000E+00	0.000E+00	5.805E-06	5.805E-03
7440508	Cu	3.7667E-06	7.1500E-06	0.000E+00	0.000E+00	1.350E-05	1.350E-02
7439921	Pb	2.9733E-05	1.3025E-05	0.000E+00	0.000E+00	2.459E-05	2.459E-02
7440020	Ni	2.6000E-06	2.2750E-06	0.000E+00	0.000E+00	4.295E-06	4.295E-03
7439965	Mn	7.8300E-05	7.8300E-05	0.000E+00	0.000E+00	1.478E-04	1.478E-01
7440666	Zn	5.7333E-06	1.0925E-05	0.000E+00	0.000E+00	2.062E-05	2.062E-02

DOZING EMISSIONS - TOTAL (ORE + WASTE)

ID#	SUBSTANCE	LB/HR	LB/YR
18540299	Cr 6 *	9.439E-07	0.001
7439976	Hg *	6.135E-06	0.006
7782492	Se *	3.540E-07	0.000
7440382	As	1.609E-04	0.161
7440417	Be *	5.899E-07	0.001
7440439	Cd	5.805E-06	0.006
7440508	Cu	1.350E-05	0.013
7439921	Pb *	2.459E-05	0.025
7440020	Ni	4.295E-06	0.004
7439965	Mn	1.478E-04	0.148
7440666	Zn	2.062E-05	0.021

Estimated Drilling Emissions

Calculations based on AP-42 Table 11.19.2-2.

Drilling Operations occur 20 hours per day 7 days per week, 52 weeks per year

	Ore	Waste	
MMTPY	6	24	
PM10 EF =		8E-05	lb/ton
TSP EF =		0.000168	lb/ton

Yearly Emissions - Drilling

PM10	From Ore operations	480	LB/Yr
PM10	From Waste operations	1920	LB/Yr
Maximum hourly tons ore drilled =		1275	
Maximum hourly tons waste drilled =		2800	
Max hourly PM10 emissions		0.33	Lb/hr

		Ore	Waste	Ore		Waste	
		LAB TEST	LAB TEST	LB/HR	LB/YR	LB/HR	Lb/Yr
18540299	Cr 6	5.000E-07	5.000E-07	1.630E-07	2.400E-04	1.630E-07	9.600E-04
7439976	Hg	1.143E-06	3.250E-06	3.727E-07	5.488E-04	1.060E-06	6.240E-03
7782492	Se	1.532E-07	1.875E-07	4.993E-08	7.352E-05	6.113E-08	3.600E-04
7440382	As	4.362E-05	8.525E-05	1.422E-05	2.094E-02	2.779E-05	1.637E-01
7440417	Be	5.142E-05	3.125E-07	1.676E-05	2.468E-02	1.019E-07	6.000E-04
7440439	Cd	1.525E-06	3.075E-06	4.972E-07	7.320E-04	1.002E-06	5.904E-03
7440508	Cu	3.767E-06	7.150E-06	1.228E-06	1.808E-03	2.331E-06	1.373E-02
7439921	Pb	2.973E-05	1.303E-05	9.693E-06	1.427E-02	4.246E-06	2.501E-02
7440020	Ni	2.600E-06	2.275E-06	8.476E-07	1.248E-03	7.417E-07	4.368E-03
7439965	Mn	7.830E-05	7.830E-05	2.553E-05	3.758E-02	2.553E-05	1.503E-01
7440666	Zn	5.733E-06	1.093E-05	1.869E-06	2.752E-03	3.562E-06	2.098E-02

DRILLING EMISSIONS - TOTAL

		Max	ORE	WASTE	
ID#	SUBSTANCE	LB/HR	LB/YR	LB/YR	LB/YR
18540299	Cr 6	1.630E-07	2.400E-04	9.600E-04	1.200E-03
7439976	Hg	1.060E-06	5.488E-04	6.240E-03	6.789E-03
7782492	Se	6.113E-08	7.352E-05	3.600E-04	4.335E-04
7440382	As	2.779E-05	2.094E-02	1.637E-01	1.846E-01
7440417	Be	1.676E-05	2.468E-02	6.000E-04	2.528E-02
7440439	Cd	1.002E-06	7.320E-04	5.904E-03	6.636E-03
7440508	Cu	2.331E-06	1.808E-03	1.373E-02	1.554E-02
7439921	Pb	9.693E-06	1.427E-02	2.501E-02	3.928E-02
7440020	Ni	8.476E-07	1.248E-03	4.368E-03	5.616E-03
7439965	Mn	2.553E-05	3.758E-02	1.503E-01	1.879E-01
7440666	Zn	3.562E-06	2.752E-03	2.098E-02	2.373E-02

Estimated wind erosion emissions

Emissions from wind erosion of the overburden piles have been estimated using the equation found in AP-42 Section 13.2.5 "Industrial Wind Erosion. Peak wind information was obtained from Edwards Air Force base for the period January 1990 through July 1994. This information was used along with the threshold friction velocities found in Table 13.2.5-2 to determine the emissions per event and determine an average emissions per year per acre. Any one individual event occurs in a one hour period and only one event can occur during a 24-hour period. Only a certain area of the dump can be eroded by wind because the remainder of the overburden dumps will be watered or otherwise treated to form a nonerodible crust.

EF = k x {Summation}(Pi)

P = 58(u* - ut*)^2 + 25(u* - ut*) for each event

where: P = erosion potential corresponding to the observed fastest mile of wind

u* = friction velocity

ut* = threshold friction velocity 1.02 m/s

Number of events are all days with wind speed in excess of 43.05 mph

	1990	1991	1992	1993	1994(1)
# Events	6	6	2	3	2

(1) through July 1994

PM10	Ann Average	1st Q	2nd Q	3rd Q	4th Q
EF tons/acre/year	0.028	0.008	0.016	0.000	0.004

	Sq Meters	Acres
Dump 1	215,625	53.28
Dump 2	433,125	107.03
Dump 3	137,100	33.88
Dump 4	256,850	63.47
Dump 5	504,125	124.57
TOTAL	1,546,825	382.22

Maximum Hourly

55.277 mph

6.054 g/m2

0.027 tons/acre

Assume only 40 percent are active at any one time.

SURFACE AREA (ACRES) 152.89

PM10	Annual emissions (lb/yr)	8500
PM10	Hourly emissions (lb/hr)	0.94

ID#	SUBSTANCE	LAB TEST	LB/HR	LB/YR
18540299	Cr 6	5.000E-07	4.700E-07	4.250E-03
7439976	Hg	3.250E-06	3.055E-06	2.763E-02
7782492	Se	1.875E-07	1.763E-07	1.594E-03
7440382	As	8.525E-05	8.014E-05	7.246E-01
7440417	Be	3.125E-07	2.937E-07	2.656E-03
7440439	Cd	3.075E-06	2.891E-06	2.614E-02
7440508	Cu	7.150E-06	6.721E-06	6.078E-02
7439921	Pb	1.303E-05	1.224E-05	1.107E-01
7440020	Ni	2.275E-06	2.138E-06	1.934E-02
7439965	Mn	7.830E-05	7.360E-05	6.656E-01
7440666	Zn	1.093E-05	1.027E-05	9.286E-02

Estimated emissions from the furnace

METAL EMISSIONS

The method of calculating emissions of metals from the furnace was established in a 1990 TEIR for another mining co.
The calculations use material balance from a pour which was witnessed by Kern Co. APCD.
A sample of digest product, slag and dore' was analyzed. The difference in weight fraction between digest product and the sum of slag and dore' was assumed to be emitted to atmosphere.
On this basis Cd, Cr VI, Se and Hg emissions were calculated. The number of pours was multiplied by the loss per pour to determine annual emissions

	Weight in grams Cd	Cr VI	Se	Hg
Digest	0.075	0.00069	0.058	0.0003
Slag	0.017	0.00019	0.0062	7.6E-05
Dore'	0.0052	0	0.00068	2.7E-05
Loss per pour (grams)	0.0528	0.0005	0.05112	0.000197
Estimated pours in 1998	312			
Loss per year (grams)	16.4736	0.156	15.94944	0.061464
Loss per year (lbs)	3.632E-02	3.440E-04	3.517E-02	1.355E-04
Max loss per hr	1.164E-04	1.103E-06	1.127E-04	4.344E-07

Fuel Use - furnace

The furnace will burn approximately 12,760 gallons of propane per year. Since emission factors are based on MMSCF of natural gas the fuel use in converted to an MMSCF equivalent as follows:
12760 gal/yr X 90,500 btu/gal X 1/1050 scf/btu X1/1,250,000 MMscf/scf = 0.88 MMscf/yr

COMBUSTION EMISSION CALCULATIONS AND INVENTORY DATA

TYPE OF DEVICE	FUEL GAS type	RATING MMbtu/h	HEIGHT feet	DIAM. feet	GAS TEMP F	FUEL BTU/scf	EMISSION CALCULATION MMscf/y	MMscf/hr
furnace	NAT.GAS	1.25	28.00	0.50	500.00	1050.00	1.10E+00	0.0012

TOXIC EMISSIONS, LB/YEAR

benz.	formal.	PAHs	acetald	acrol	propyl	tolu	xyle	napth
2.03E-02	4.50E-02	2.16E-01	3.88E-02	1.44E-02	3.01E-01	3.88E-02	2.42E-03	1.96E-01

TOXIC EMISSIONS, LB/HOUR

benz.	formal.	PAHs	acetald	acrol	propyl	tolu	xyle	napth
2.20E-05	4.87E-05	2.34E-04	4.20E-05	1.56E-05	3.26E-04	7.02E-06	2.62E-06	2.13E-04

Emission Factors for < 10 MMBtu/hr.			
Benzene	0.0185	Acrolein	0.0131
Formaledhyde	0.0409	Propylene	0.2737
PAH's	0.1964	Toluene	0.0059
Naphthalene	0.1785	Xylenes	0.0022
Acetaldehyde	0.0353		

NOTE: Emission factors are "lb./MMcf."

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Estimated emissions from Truck Hauling - Page 1

Particulate emissions from hauling the ore and waste are calculated using AP-42, section 13.2. (Unpaved Roads). The roads will be watered on all operating days to control particulate emiss. Magnesium chloride is also proposed as base control with water as additional control.

The formula found in AP-42 Section 13.2.2 is shown below:

E(lb/vmt) = k(5.9) (s/12) (S/30) (W/3)^0.7 (w\4)^0.5 (365-p/365)

k = particulate size mutiplier (pm10=0.36) (TSP=0.8)

s = silt content (%) of road surface

W = mean vehicle weight (tons) 64 tons empty, 154 tons full

S = mean vehicle speed (MPH)

w = number of wheels per vehicle

p = precipitation days per year

Control efficiency factor is calculated on page 2 of truck hauling emissions.

Constant	5.9
k	0.36
silt content (%)	3.25
Speed (MPH)	15.00
Vehicle wt. (ton)	115.60
wheels, #/vehicle	6.00
precipitation days	15.00
CE for chemicals	90.00%
Addtl CE for water	87.24%
Total CE	98.72%
LB/VMT	0.06

	tpy	tons per truck	miles per trip
Ore	6,000,000	145	3.018
Overburden	24,000,000	145	0.983

VMT = tpy/(tons/truck)*miles/trip

VMT, ore	124882	
VMT, Waste	162696	
TOTAL	287578	
PM10	15975	lb/yr
Max VMT per hour	56.79	
PM10	3.15	lb/hr

ID#	SUBSTANCE	LAB TEST	LB/HR	LB/YR
18540299	Cr 6	5.000E-07	1.577E-06	7.988E-03
7439976	Hg	3.250E-06	1.025E-05	5.192E-02
7782492	Se	1.875E-07	5.915E-07	2.995E-03
7440382	As	8.525E-05	2.689E-04	1.362E+00
7440417	Be	3.125E-07	9.858E-07	4.992E-03
7440439	Cd	3.075E-06	9.701E-06	4.912E-02
7440508	Cu	7.150E-06	2.256E-05	1.142E-01
7439921	Pb	1.303E-05	4.109E-05	2.081E-01
7440020	Ni	2.275E-06	7.177E-06	3.634E-02
7439965	Mn	7.830E-05	2.470E-04	1.251E+00
7440666	Zn	1.093E-05	3.446E-05	1.745E-01

Estimated emissions from Truck Hauling - Page 2

Control efficiency for wet suppression on unpaved roads is from AP-40 page 141

$C = 100 - (0.8*p*d*t/i)$

where

p = potential evaporation, mm/h	p = 0.0049*110 annual =	0.539	
	p = 0.0065*110 summer =	0.715	

(110 is mean annual pan evaporation from chart page 142)

evaporation, inches per year	92.9457 annual					
	123.295 summer					
d = average daytime traffic, (1/h) =	5.7 ore	22.7	waste			
t = time between applications, hours	1.2 summer	1.5	Annual			
i = application intensity, l/m2	1.22	1.22				
Rainfall*, inches per application	0.048	0.048				
Road width	75 ft	75				
Total Water used per application	564 barrels	564				
C, % =	87.24 summer waste	87.97	annual waste	87.2	88.0
C, % =	96.81 summer ore	96.99	annual ore	87.2	97.0

* Equivalent rainfall for amount of water applied by truck

Water Truck size	6000	gallons, initially
add'l truck	18000	gallons added after 1.5 years
Water usage for roads	260	gallons per minute
Haulage and water trucks	20	hours per day
Roundtrip road length, ore	15935	feet
Roundtrip road length, overburden	5190	feet

Estimated Emissions from Truck Loading and Unloading

Emission factor for drop operation, AP-42, Section 11.2.3-2, September 1988

E = K * 0.0032 (U/5)^1.3/(M/2)^1.4

k=Particle size fraction	0.35	PM10
U=Mean wind speed, mph	8.05	Average from Edwards AFB
M=Moisture content,%	3	from applicant
E =	0.00118	

	Tons	EF	Annual PM10
Load Ore	6,000,000	0.00118	7,075
Load Waste	24,000,000	0.00118	28,299
Unload Ore	0	0.00118	0
Unload Waste	24,000,000	0.00118	28,299
Max Hourly ore loaded	2000		
Max Hrly wste loaded or unlo	2500		
Max hourly emissions, ore	2.36 Lb/Hr		
Max hourly emissions, waste	2.95		

LOADING EMISSIONS

	ORE LAB TEST	WASTE LAB TEST	LB/HR	ORE LB/YR	WASTE LB/YR	TOTAL LB/YR
Cr 6	5.000E-07	5.000E-07	2.655E-06	3.538E-03	1.415E-02	1.769E-02
Hg	1.143E-06	3.250E-06	6.071E-06	8.089E-03	9.197E-02	1.001E-01
Se	1.532E-07	1.875E-07	8.133E-07	1.084E-03	5.306E-03	6.390E-03
As	4.362E-05	8.525E-05	2.316E-04	3.086E-01	2.412E+00	2.721E+00
Be	5.142E-05	3.125E-07	2.730E-04	3.638E-01	8.843E-03	3.726E-01
Cd	1.525E-06	3.075E-06	8.098E-06	1.079E-02	8.702E-02	9.781E-02
Cu	3.767E-06	7.150E-06	2.000E-05	2.665E-02	2.023E-01	2.290E-01
Pb	2.973E-05	1.303E-05	1.579E-04	2.104E-01	3.686E-01	5.790E-01
Ni	2.600E-06	2.275E-06	1.381E-05	1.840E-02	6.438E-02	8.278E-02
Mn	7.830E-05	7.830E-05	4.158E-04	5.540E-01	2.216E+00	2.770E+00
Zn	5.733E-06	1.093E-05	3.044E-05	4.056E-02	3.092E-01	3.497E-01

UNLOADING EMISSIONS

	ORE LAB TEST	WASTE LAB TEST	LB/HR	Ore LB/YR	Waste LB/YR	TOTAL LB/YR
Cr 6	5.0000E-07	5.0000E-07	2.655E-06	0.000E+00	1.415E-02	1.415E-02
Hg	1.1433E-06	3.2500E-06	6.071E-06	0.000E+00	9.197E-02	9.197E-02
Se	1.5317E-07	1.8750E-07	8.133E-07	0.000E+00	5.306E-03	5.306E-03
As	4.3623E-05	8.5250E-05	2.316E-04	0.000E+00	2.412E+00	2.412E+00
Be	5.1417E-05	3.1250E-07	2.730E-04	0.000E+00	8.843E-03	8.843E-03
Cd	1.5250E-06	3.0750E-06	8.098E-06	0.000E+00	8.702E-02	8.702E-02
Cu	3.7667E-06	7.1500E-06	2.000E-05	0.000E+00	2.023E-01	2.023E-01
Pb	2.9733E-05	1.3025E-05	1.579E-04	0.000E+00	3.686E-01	3.686E-01
Ni	2.6000E-06	2.2750E-06	1.381E-05	0.000E+00	6.438E-02	6.438E-02
Mn	7.8300E-05	7.8300E-05	4.158E-04	0.000E+00	2.216E+00	2.216E+00
Zn	5.7333E-06	1.0925E-05	3.044E-05	0.000E+00	3.092E-01	3.092E-01

SUM OF TRUCK LOADING AND UNLOADING

ID#	SUBSTANCE	LB/HR	ORE LB/YR	WASTE LB/YR	Total LB/YR
18540299	Cr 6	2.655E-06	3.538E-03	2.830E-02	3.184E-02
7439976	Hg	6.071E-06	8.089E-03	1.839E-01	1.920E-01
7782492	Se	8.133E-07	1.084E-03	1.061E-02	1.170E-02
7440382	As	2.316E-04	3.086E-01	4.825E+00	5.134E+00
7440417	Be	2.730E-04	3.638E-01	1.769E-02	3.815E-01
7440439	Cd	8.098E-06	1.079E-02	1.740E-01	1.848E-01
7440508	Cu	2.000E-05	2.665E-02	4.047E-01	4.313E-01
7439921	Pb	1.579E-04	2.104E-01	7.372E-01	9.476E-01
7440020	Ni	1.381E-05	1.840E-02	1.288E-01	1.472E-01
7439965	Mn	4.158E-04	5.540E-01	4.432E+00	4.986E+00
7440666	Zn	3.044E-05	4.056E-02	6.183E-01	6.589E-01

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Estimated Emissions from Ponds & Pads

MINE 1

Barren Pond

Surface Area =	0	ft2
Average pH =	11	pH
NaCN Conc. =	225	ppm

Pregnant Pond

Surface Area =	0	ft2
Average pH =	11	pH
NaCN Conc. =	100	ppm

Leach Pad

Solution Usage =	1.89E+09	gal/yr

MINE 2

Barren Pond

Surface Area =	0	ft2
Average pH =	9.7	pH
NaCN Conc. =	5	ppm

Pregnant Pond

Surface Area =	0	ft2
Average pH =	9	pH
NaCN Conc. =	5	ppm

Leach Pad

Solution Usage =	1.60E+08	gal/yr

Temperature Adjustment Factor

Dome Mines temp	2	C
Vapor Pressure	289	mm Hg
Rand Temp	25	C
Vapor Pressure	739	mm Hg
Factor(t) =	2.557	

Solution Concentration

Dome	65.3	ppm (as CN)
MINE 1 BARREN	200	ppm (as CN)
MINE 2 BARREN	75	ppm (as CN)
MINE 1 PREGNANT	200	ppm (as CN)
MINE 2 PREGNANT	75	ppm (as CN)

Factor(c)

MINE 1 BARREN	3.063
MINE 2 BARREN	1.149
MINE 1 PREGNANT	3.063
MINE 2 PREGNANT	1.149

pH Adjustment Factor

Dome	11.4	pH
	0.5%	HCN Conce
Golden Queen		
MINE 1 (B & P)	10.5	pH
	6.0%	HCN Conce
MINE 2 BARREN	10.5	pH
	6.0%	HCN Conce
MINE 2 PREGNANT	10.5	pH
	6.0%	HCN Conce

Factor(pH)

MINE 1 BARREN	12
MINE 2 BARREN	12
MINE 1 PREGNANT	12
MINE 2 PREGNANT	12

Pond Emission Factors for HCN

lb/ft2/day = 5.6E-05 x Factor(t) x factor(pH) x factor(c) x MW(HCN)/MW(CN)

lb/ft2/hr = 2.3E-06 x Factor(t) x factor(pH) x factor(c) x MW(HCN)/MW(CN)

MW(HCN) = 27

MW(CN) = 26

	lb/ft2/day	lb/ft2/hr
MINE 1 BARREN	5.47E-03	2.24E-04
MINE 2 BARREN	2.05E-03	8.42E-05
MINE 1 PREGNANT	5.47E-03	2.24E-04
MINE 2 PREGNANT	2.05E-03	8.42E-05

Calculated Emissions from ponds

	lb/yr	lb/hr
MINE 1 BARREN	0	0
MINE 2 BARREN	0	0
MINE 1 PREGNANT	0	0
MINE 2 PREGNANT	0	0

Estimated Emissions from Ponds & Pads

Emissions from Leach Pads are based on Gold Fields Operating Company (GFOC) data. GFOC emissions rate was 1.29e-4 lbs HCN per gallon of leaching solution evaporated.

pH Adjustments

GFOC	9.8	pH
	20.0%	HCN
Golden Queen	10.5	pH
	15.1%	HCN
Not used	10.5	pH
	3.0%	HCN
Factor(pH)		
Golden Queen	0.76	
Not used	0.15	

Concentration Adjustments

GFOC	106	ppm
Golden Queen	250	ppm
Not Used	0	ppm
Factor(c)		
Golden Queen	2.358	
Not used	0.000	

Pad Emission Factors for HCN

lb(HCN)/gal evaporated = 1.29E-04 x factor(pH) x factor(c)

lb/gal evaporated	
Golden Queen	2.30E-04
Not used	0.00E+00

Mine 1 evaporation factor	5%
Mine 2 evaporation factor	5%

Calculated Emissions from pads

	lb/yr	lb/hr
Golden Queen	21731.95	2.481E+00
Mine 2	0.00	0.000E+00

Estimated Emissions from Mercury Retort

Cactus Gold Mercury Retort Emission Limit = 7.07925 E-6 gm/sec
Cactus Gold 1993 TEIR used source test results of 5.81E-6 lb Hg/Hr
Annual emissions were calculated at 9.1 E-3 lb Hg/yr
Amount of ore processed was reported at 4,370,000 tons/yr

Emission factor (Lb Hg/ton ore) = 2.082E-09

Estimated annual emissions for Golden Queen:

6,000,000 ton ore/yr X 2.08E-9 Lb Hg/ton ore 1.249E-02 lb Hg/Yr

Maximum hourly Hg emissions:

7.07925E-6 gm/sec X 60 sec/min X 60 min/hr X 2.205E-3 lb/gm=
5.620E-05 lb Hg/Hr

CONSTITUENT CONCENTRATIONS COMPARED

	RAND LAB TEST	CACTUS Blasthole	CACTUS Crusher	STD HILL	Old Basis for Golden Queen Calculations
18540299 Cr 6 *	2.50E-07 +	5.00E-07 +	5.00E-07	2.00E-08	5.00E-07
7439976 Hg *	1.00E-08	1.38E-06	6.50E-06	2.10E-07	6.50E-06
7782492 Se *	1.40E-07	9.00E-07 +	2.50E-07	5.00E-08	2.50E-07
7440382 As	1.14E-03	1.65E-03	2.14E-03	1.20E-05	1.20E-05
7440417 Be *	1.80E-07 +	2.50E-07	1.09E-06	4.00E-07	1.09E-06
7440439 Cd	1.70E-07	4.10E-06	8.38E-06	2.10E-07	8.38E-06
7440508 Cu	3.14E-05	9.90E-06	3.67E-05	2.20E-06	3.67E-05
7439921 Pb	1.88E-05	3.96E-05	4.05E-05	1.20E-05	4.05E-05
7440020 Ni	2.29E-05 +	1.25E-06	5.29E-06	2.00E-06	5.29E-06
7439965 Mn	2.50E-04	1.02E-05	7.83E-05	5.95E-04	7.83E-05
7440666 Zn	7.36E-05	1.95E-05	2.22E-05	8.50E-05	2.22E-05
1175 Sio2	1.21E-01	1.04E-01	8.87E-02	8.60E-02	

+ 50% detection limit

	New Basis for Golden Queen Ore	Waste	Rhyolite	Siliceous Pyroclastic	OT-3	RT-1	RT-2	RT-3	RT-4
18540299 Cr 6	5.00E-07	5.00E-07	2.70E-06	1.10E-06	1.30E-04	1.10E-04	1.20E-04	7.20E-05	1.30E-04
7439976 Hg	1.14E-06	3.25E-06	4.30E-07	2.10E-06	9.00E-07	6.90E-06	1.00E-06	9.00E-07	4.20E-06
7782492 Se	1.53E-07	1.88E-07	4.70E-08	1.25E-08	4.00E-07	5.00E-07	1.00E-07	5.00E-08	1.00E-07
7440382 As	4.36E-05	8.53E-05	3.50E-07	5.20E-07	1.30E-04	7.50E-05	1.40E-04	5.00E-05	7.60E-05
7440417 Be	5.14E-05	3.13E-07	7.40E-05	8.00E-05	2.50E-07	2.50E-07	2.50E-07	5.00E-07	2.50E-07
7440439 Cd	1.53E-06	3.08E-06	2.50E-07	1.25E-07	4.20E-06	2.80E-06	5.50E-06	1.50E-06	2.50E-06
7440508 Cu	3.77E-06	7.15E-06	3.20E-06	3.80E-06	4.30E-06	1.00E-05	6.00E-06	5.80E-06	6.80E-06
7439921 Pb	2.97E-05	1.30E-05	2.50E-05	3.20E-06	6.10E-05	8.30E-06	5.50E-06	3.30E-05	5.30E-06
7440020 Ni	2.60E-06	2.28E-06	3.20E-06	1.60E-06	3.00E-06	3.50E-06	1.00E-06	1.00E-06	3.60E-06
7439965 Mn	7.83E-05	7.83E-05							
7440666 Zn	5.73E-06	1.09E-05	6.20E-06	2.00E-06	9.00E-06	1.10E-05	8.20E-06	1.60E-05	8.50E-06

	ORE			WASTE		
	Average	Maximum	Minimum	Average	Maximum	Minimum
18540299 Cr 6	4.46E-05	1.30E-04	1.10E-06	1.08E-04	1.30E-04	7.20E-05
7439976 Hg	1.14E-06	2.10E-06	4.30E-07	3.25E-06	6.90E-06	9.00E-07
7782492 Se	1.53E-07	4.00E-07	1.25E-08	1.88E-07	5.00E-07	5.00E-08
7440382 As	4.36E-05	1.30E-04	3.50E-07	8.53E-05	1.40E-04	5.00E-05
7440417 Be	5.14E-05	8.00E-05	2.50E-07	3.13E-07	5.00E-07	2.50E-07
7440439 Cd	1.53E-06	4.20E-06	1.25E-07	3.08E-06	5.50E-06	1.50E-06
7440508 Cu	3.77E-06	4.30E-06	3.20E-06	7.15E-06	1.00E-05	5.80E-06
7439921 Pb	2.97E-05	6.10E-05	3.20E-06	1.30E-05	3.30E-05	5.30E-06
7440020 Ni	2.60E-06	3.20E-06	1.60E-06	2.28E-06	3.60E-06	1.00E-06
7439965 Mn						
7440666 Zn	5.73E-06	9.00E-06	2.00E-06	1.09E-05	1.60E-05	8.20E-06
1175 Sio2						

Estimated Blasting Emissions

Calculated pursuant to AP-42, table 11.9-2 revised 9/88 as corrected per discussion w EPA.

Lbs (TSP) = 0.000014*A^1.5: where A = horizontal area of blast in ft2

Average Holes per Blast =	200	
Sq Ft affected per hole =	387	(19.68 x 19.68 blast pattern)
Total Sq Ft per blast =	77,400	
TSP fraction =	1	
Tons per hole =	572.8	
Annual Ore Production, MMTPY	6	
Annual Overburden, MMTPY	24	0.7 BLASTS PER DAY

Estimate number of holes and blasts	Ore	Overburden	Total
# Holes	10500	41900	52400
# Blasts per Year	53	210	263

TSP	Blasting per year	15980	Ore
		63310	Overburden
		79290	Total
TSP	Max Hourly assuming 1 blast per hour	301	

Emmitent ID		Ore LAB TEST	Overburden LAB TEST	LB/HR	Ore LB/YR	Overburden LB/YR	Total LB/YR
18540299	Cr 6	5.000E-07	5.000E-07	1.505E-04	7.990E-03	3.166E-02	3.964E-02
7439976	Hg	1.143E-06	3.250E-06	3.441E-04	1.827E-02	2.058E-01	2.240E-01
7782492	Se	1.532E-07	1.875E-07	4.610E-05	2.448E-03	1.187E-02	1.432E-02
7440382	As	4.362E-05	8.525E-05	1.313E-02	6.971E-01	5.397E+00	6.094E+00
7440417	Be	5.142E-05	3.125E-07	1.548E-02	8.216E-01	1.978E-02	8.414E-01
7440439	Cd	1.525E-06	3.075E-06	4.590E-04	2.437E-02	1.947E-01	2.190E-01
7440508	Cu	3.767E-06	7.150E-06	1.134E-03	6.019E-02	4.527E-01	5.129E-01
7439921	Pb	2.973E-05	1.303E-05	8.950E-03	4.751E-01	8.246E-01	1.300E+00
7440020	Ni	2.600E-06	2.275E-06	7.826E-04	4.155E-02	1.440E-01	1.856E-01
7439965	Mn	7.830E-05	7.830E-05	2.357E-02	1.251E+00	4.957E+00	6.208E+00
7440666	Zn	5.733E-06	1.093E-05	1.726E-03	9.162E-02	6.917E-01	7.833E-01

ID#	SUBSTANCE	LB/HR	Ore LB/YR	Overburden LB/YR	Total LB/YR
18540299	Cr 6 *	1.505E-04	7.990E-03	3.166E-02	3.964E-02
7439976	Hg *	3.441E-04	1.827E-02	2.058E-01	2.240E-01
7782492	Se *	4.610E-05	2.448E-03	1.187E-02	1.432E-02
7440382	As	1.313E-02	6.971E-01	5.397E+00	6.094E+00
7440417	Be *	1.548E-02	8.216E-01	1.978E-02	8.414E-01
7440439	Cd	4.590E-04	2.437E-02	1.947E-01	2.190E-01
7440508	Cu	1.134E-03	6.019E-02	4.527E-01	5.129E-01
7439921	Pb *	8.950E-03	4.751E-01	8.246E-01	1.300E+00
7440020	Ni	7.826E-04	4.155E-02	1.440E-01	1.856E-01
7439965	Mn	0.02	1.251E+00	4.957E+00	6.208E+00
7440666	Zn	1.726E-03	9.162E-02	6.917E-01	7.833E-01

Estimated Conveyor Emissions

Emissions have been estimated for the conveyor system from the crusher to the agglomerator using an emission factor from AP-42 Table 11.24-2 (1/95). The PM10 emission factor for high moisture ore is 0.004 lb/ton/transfer point. Fugitive emissions from the conveyor will be controlled with baghouses. A control efficiency of 99% and 49 transfer points has been assumed. Based on the exhibit attached, the average transfer point will process 449 tph.

Emissions are calculated as follows:

Lb/Yr = Ton/Yr X EF(lb/ton) X (1-CE)

Lb/hr = Ton/hr X EF(lb/ton) X (1-CE)

PM10 EF 0.004

TSP EF 0.01

Tons Transferred		TSP	Transfer	Control	TSP	TSP
Ton/Hr	Ton/Yr	lb/ton	Points		lb/hr	lb/yr
449.00	2993333	0.01	47	99.00%	2.110	14069

Emmitent		WT. FRAC.		LB/HR	LB/YR
18540299	Cr 6	5.000E-07		1.06E-06	7.03E-03
7439976	Hg	1.143E-06		2.41E-06	1.61E-02
7782492	Se	1.532E-07		3.23E-07	2.15E-03
7440382	As	4.362E-05		9.21E-05	6.14E-01
7440417	Be	5.142E-05		1.09E-04	7.23E-01
7440439	Cd	1.525E-06		3.22E-06	2.15E-02
7440508	Cu	3.767E-06		7.95E-06	5.30E-02
7439921	Pb	2.973E-05		6.27E-05	4.18E-01
7440020	Ni	2.600E-06		5.49E-06	3.66E-02
7439965	Mn	7.830E-05		1.65E-04	1.10E+00
7440666	Zn	5.733E-06		1.21E-05	8.07E-02

Estimated Crushing Emissions

Emission factors for high moisture ore from AP-42, section 11.24. (Water is added at crushers)

From section 11.24 page 1:

The emission factors in Tables 11.24-1 and 11.24-2 are for the process operations as a whole.
At most metallic mineral processing plants, each process operation requires several types of equipment.
A single crushing operation likely includes a hopper or ore dump, screen(s), crusher, surge bin, apron feede conveyor belt transfer points. Emissions from these various pieces of equipment are often ducted to a singl device. The emissions factors provided in Tables 11.24-1 and 11.24-2 for primary, secondary, and tertiary operations are for process units that are typical arrangements of the above equipment."

Therefore, all transfer points within the plant are assumed to be included in the crushing emission factors.

Primary crusher is controlled by water spray

Secondary and tertiary crushers are controlled by baghouses

Hours of operation per year 7100

Emission Factor	PM10	TSP	tons/year	Tons/hour
Primary	0.009	0.02	6000000	900
Secondary	0.02	0.05	6000000	900
Tertiary (cone)	0.02	0.06	5035000	755
Tertiary (VSI)	0.02	0.06	9720000	1458

Water Spray Control Efficiency = 90%

Baghouse Control Efficiency = 99.0%

CRUSHING	Factor lb/ton	Uncontl TSP/Yr	Controlled TSP/Yr	Controlled TSP/Hr
Primary	0.02	120000	12000	1.800
Secondary *	0.05	300000	3000	0.450
Tertiary (cone)	0.06	302100	3021	0.453
Tertiary (VSI)	0.02	194400	1944	0.292
Total			**19965**	**2.99**

* Value determined from ratio of PM to PM10 from tertiary crusher.

Controlled Emissions/Yr = Ton/year X Factor X (1-CE)

Substance		Wt. Fraction		Lb/Hr	Lb/Yr
18540299	Cr 6	5.000E-07		1.50E-06	9.98E-03
7439976	Hg	1.143E-06		3.42E-06	2.28E-02
7782492	Se	1.532E-07		4.59E-07	3.06E-03
7440382	As	4.362E-05		1.31E-04	8.71E-01
7440417	Be	5.142E-05		1.54E-04	1.03E+00
7440439	Cd	1.525E-06		4.57E-06	3.04E-02
7440508	Cu	3.767E-06		1.13E-05	7.52E-02
7439921	Pb	2.973E-05		8.90E-05	5.94E-01
7440020	Ni	2.600E-06		7.79E-06	5.19E-02
7439965	Mn	7.830E-05		2.34E-04	1.56E+00
7440666	Zn	5.733E-06		1.72E-05	1.14E-01

Estimated Dozing Emissions

Emissions from dozing were calculated using AP-42, table 11.9-2, bulldozing overburden

PM10 (Lb/Hr) = 1.0(s)^1.5/M^1.4*0.75

TSP(Lb/Hr) = 5.7(s)^1.2/M^1.3

s=silt content	3.25%	average per applicant
M=moisture content	3.00%	average per applicant

Assume dozer operates 30 sec. per 100 tons of overburden.

Proposed # of dozers		2
TSP	Lb/Hr Ore	0
	Max Lb/Hr Overburden	11.244

Dozer hours = tons/year x 30 sec/100 tons x 1/3600 sec/hour

Dozer Hours - Overburden		2000	Hours/Year
TSP	Lb/Yr from Ore	0	
TSP	Lb/Yr from Overburden	11243.6	

		ORE	WASTE	ORE		WASTE	
	Dozing - Ore	LAB TEST	LAB TEST	LB/HR	LB/YR	LB/HR	LB/YR
1.9E+07	Cr 6	5.0000E-07	5.0000E-07	0.000E+00	0.000E+00	5.622E-06	5.622E-03
7439976	Hg	1.1433E-06	3.2500E-06	0.000E+00	0.000E+00	3.654E-05	3.654E-02
7782492	Se	1.5317E-07	1.8750E-07	0.000E+00	0.000E+00	2.108E-06	2.108E-03
7440382	As	4.3623E-05	8.5250E-05	0.000E+00	0.000E+00	9.585E-04	9.585E-01
7440417	Be	5.1417E-05	3.1250E-07	0.000E+00	0.000E+00	3.514E-06	3.514E-03
7440439	Cd	1.5250E-06	3.0750E-06	0.000E+00	0.000E+00	3.457E-05	3.457E-02
7440508	Cu	3.7667E-06	7.1500E-06	0.000E+00	0.000E+00	8.039E-05	8.039E-02
7439921	Pb	2.9733E-05	1.3025E-05	0.000E+00	0.000E+00	1.464E-04	1.464E-01
7440020	Ni	2.6000E-06	2.2750E-06	0.000E+00	0.000E+00	2.558E-05	2.558E-02
7439965	Mn	7.8300E-05	7.8300E-05	0.000E+00	0.000E+00	8.804E-04	8.804E-01
7440666	Zn	5.7333E-06	1.0925E-05	0.000E+00	0.000E+00	1.228E-04	1.228E-01

DOZING EMISSIONS - TOTAL (ORE + WASTE)

ID#	SUBSTANCE	LB/HR	LB/YR
18540299	Cr 6 *	5.622E-06	0.006
7439976	Hg *	3.654E-05	0.037
7782492	Se *	2.108E-06	0.002
7440382	As	9.585E-04	0.959
7440417	Be *	3.514E-06	0.004
7440439	Cd	3.457E-05	0.035
7440508	Cu	8.039E-05	0.080
7439921	Pb *	1.464E-04	0.146
7440020	Ni	2.558E-05	0.026
7439965	Mn	8.804E-04	0.880
7440666	Zn	1.228E-04	0.123

Estimated Drilling Emissions

Calculations based on AP-42 Table 11.19.2-2.

Drilling Operations occur 20 hours per day 7 days per week, 52 weeks per year

	Ore	Waste		
MMTPY	6	24		
PM10 EF =		8E-05	lb/ton	
TSP EF =		0.000168	lb/ton	

Yearly Emissions - Drilling

TSP	From Ore operations	1008	LB/Yr
TSP	From Waste operations	4032	LB/Yr
Maximum hourly tons ore drilled =		1275	
Maximum hourly tons waste drilled =		2800	
Max hourly PM10 emissions		0.68	Lb/hr

		Ore	Waste	Ore		Waste	
		LAB TEST	LAB TEST	LB/HR	LB/YR	LB/HR	Lb/Yr
18540299	Cr 6	5.000E-07	5.000E-07	3.423E-07	5.040E-04	3.423E-07	2.016E-03
7439976	Hg	1.143E-06	3.250E-06	7.827E-07	1.152E-03	2.225E-06	1.310E-02
7782492	Se	1.532E-07	1.875E-07	1.049E-07	1.544E-04	1.284E-07	7.560E-04
7440382	As	4.362E-05	8.525E-05	2.986E-05	4.397E-02	5.836E-05	3.437E-01
7440417	Be	5.142E-05	3.125E-07	3.520E-05	5.183E-02	2.139E-07	1.260E-03
7440439	Cd	1.525E-06	3.075E-06	1.044E-06	1.537E-03	2.105E-06	1.240E-02
7440508	Cu	3.767E-06	7.150E-06	2.579E-06	3.797E-03	4.895E-06	2.883E-02
7439921	Pb	2.973E-05	1.303E-05	2.036E-05	2.997E-02	8.917E-06	5.252E-02
7440020	Ni	2.600E-06	2.275E-06	1.780E-06	2.621E-03	1.557E-06	9.173E-03
7439965	Mn	7.830E-05	7.830E-05	5.360E-05	7.893E-02	5.360E-05	3.157E-01
7440666	Zn	5.733E-06	1.093E-05	3.925E-06	5.779E-03	7.479E-06	4.405E-02

DRILLING EMISSIONS - TOTAL

ID#	SUBSTANCE	Max LB/HR	ORE LB/YR	WASTE LB/YR	LB/YR
18540299	Cr 6	3.423E-07	5.040E-04	2.016E-03	2.520E-03
7439976	Hg	2.225E-06	1.152E-03	1.310E-02	1.426E-02
7782492	Se	1.284E-07	1.544E-04	7.560E-04	9.104E-04
7440382	As	5.836E-05	4.397E-02	3.437E-01	3.877E-01
7440417	Be	3.520E-05	5.183E-02	1.260E-03	5.309E-02
7440439	Cd	2.105E-06	1.537E-03	1.240E-02	1.394E-02
7440508	Cu	4.895E-06	3.797E-03	2.883E-02	3.263E-02
7439921	Pb	2.036E-05	2.997E-02	5.252E-02	8.249E-02
7440020	Ni	1.780E-06	2.621E-03	9.173E-03	1.179E-02
7439965	Mn	5.360E-05	7.893E-02	3.157E-01	3.946E-01
7440666	Zn	7.479E-06	5.779E-03	4.405E-02	4.983E-02

Estimated wind erosion emissions

Emissions from wind erosion of the overburden piles have been estimated using the equation found in AP-42 Section 13.2.5 "Industrial Wind Erosion. Peak wind information was obtained from Edwards Air Force base for the period January 1990 through July 1994. This information was used along with the threshold friction velocities found in Table 13.2.5-2 to determine the emissions per event and determine an average emissions per year per acre. Any one individual event occurs in a one hour period and only one event can occur during a 24-hour period. Only a certain area of the dump can be eroded by wind because the remainder of the overburden dumps will be watered or otherwise treated to form a nonerodible crust.

EF = k x {Summation}(Pi)

P = 58(u* - ut*)^2 + 25(u* - ut*) for each event

where: P = erosion potential corresponding to the observed fastest mile of wind

u* = friction velocity

ut* = threshold friction velocity 1.02 m/s

Number of events are all days with wind speed in excess of 43.05 mph

	1990	1991	1992	1993	1994(1)
# Events	6	6	2	3	2

(1) through July 1994

TSP	Ann Average	1st Q	2nd Q	3rd Q	4th Q
EF tons/acre/year	0.056	0.017	0.031	0.000	0.008

	Sq Meters	Acres
Dump 1	215,625	53.28
Dump 2	433,125	107.03
Dump 3	137,100	33.88
Dump 4	256,850	63.47
Dump 5	504,125	124.57
TOTAL	1,546,825	382.22

Maximum Hourly

55.277 mph

12.109 g/m2

0.054 tons/acre

Assume only 40 percent are active at any one time.

SURFACE AREA (ACRES) 152.89

TSP	Annual emissions (lb/yr)	17000
TSP	Hourly emissions (lb/hr)	1.89

ID#	SUBSTANCE	LAB TEST	LB/HR	LB/YR
18540299	Cr 6	5.000E-07	9.450E-07	8.500E-03
7439976	Hg	3.250E-06	6.143E-06	5.525E-02
7782492	Se	1.875E-07	3.544E-07	3.188E-03
7440382	As	8.525E-05	1.611E-04	1.449E+00
7440417	Be	3.125E-07	5.906E-07	5.313E-03
7440439	Cd	3.075E-06	5.812E-06	5.228E-02
7440508	Cu	7.150E-06	1.351E-05	1.216E-01
7439921	Pb	1.303E-05	2.462E-05	2.214E-01
7440020	Ni	2.275E-06	4.300E-06	3.868E-02
7439965	Mn	7.830E-05	1.480E-04	1.331E+00
7440666	Zn	1.093E-05	2.065E-05	1.857E-01

Estimated emissions from Truck Hauling - Page 1

Particulate emissions from hauling the ore and waste are calculated using AP-42, section 13.2. (Unpaved Roads). The roads will be watered on all operating days to control particulate emiss. Magnesium chloride is also proposed as base control with water as additional control.

The formula found in AP-42 Section 13.2.2 is shown below:

E(lb/vmt) = k(5.9) (s/12) (S/30) (W/3)^0.7 (w\4)^0.5 (365-p/365)

k = particulate size mutiplier (pm10=0.36) (TSP=0.8)

s = silt content (%) of road surface

W = mean vehicle weight (tons) 64 tons empty, 154 tons full

S = mean vehicle speed (MPH)

w = number of wheels per vehicle

p = precipitation days per year

Control efficiency factor is calculated on page 2 of truck hauling emissions.

Constant	5.9
k	0.80
silt content (%)	3.25
Speed (MPH)	15.00
Vehicle wt. (ton)	115.60
wheels, #/vehicle	6.00
precipitation days	15.00
CE for chemicals	90.00%
Addtl CE for water	87.24%
Total CE	98.72%
LB/VMT	0.12

	tpy	tons per truck	miles per trip
Ore	6,000,000	145	3.018
Overburden	24,000,000	145	0.983

VMT = tpy/(tons/truck)*miles/trip

VMT, ore	124882	
VMT, Waste	162696	
TOTAL	287578	
TSP	35499	lb/yr
Max VMT per hour	56.79	
TSP	7.01	lb/hr

ID#	SUBSTANCE	LAB TEST	LB/HR	LB/YR
18540299	Cr 6	5.000E-07	3.505E-06	1.775E-02
7439976	Hg	3.250E-06	2.278E-05	1.154E-01
7782492	Se	1.875E-07	1.314E-06	6.656E-03
7440382	As	8.525E-05	5.976E-04	3.026E+00
7440417	Be	3.125E-07	2.191E-06	1.109E-02
7440439	Cd	3.075E-06	2.156E-05	1.092E-01
7440508	Cu	7.150E-06	5.012E-05	2.538E-01
7439921	Pb	1.303E-05	9.131E-05	4.624E-01
7440020	Ni	2.275E-06	1.595E-05	8.076E-02
7439965	Mn	7.830E-05	5.489E-04	2.780E+00
7440666	Zn	1.093E-05	7.659E-05	3.878E-01

Estimated emissions from Truck Hauling - Page 2

Control efficiency for wet suppression on unpaved roads is from AP-40 page 141

C = 100 - (0.8*p*d*t/i)

where

p = potential evaporation, mm/h		p = 0.0049*110 annual =		0.539			
		p = 0.0065*110 summer =		0.715			
(110 is mean annual pan evaporation from chart page 142)							
evaporation, inches per year	92.9457	annual					
	123.295	summer					
d = average daytime traffic, (1/h) =	5.7	ore	22.7	waste			
t = time between applications, hours	1.2	summer	1.5	Annual			
i = application intensity, l/m2	1.22		1.22				
Rainfall*, inches per application	0.048		0.048				
Road width	75	ft	75				
Total Water used per application	564	barrels	564				
C, % =	87.24	summer waste	87.97	annual waste		87.2	88.0
C, % =	96.81	summer ore	96.99	annual ore		87.2	97.0

* Equivalent rainfall for amount of water applied by truck

Water Truck size	6000	gallons, initially
add'l truck	18000	gallons added after 1.5 years
Water usage for roads	260	gallons per minute
Haulage and water trucks	20	hours per day
Roundtrip road length, ore	15935	feet
Roundtrip road length, overburden	5190	feet

Estimated Emissions from Truck Loading and Unloading

Emission factor for drop operation, AP-42, Section 11.2.3-2, September 1988

E = K * 0.0032 (U/5)^1.3/(M/2)^1.4

k=Particle size fraction	0.74	TSP	
U=Mean wind speed, mph	8.05	Average from Edwards AFB	
M=Moisture content,%	3	from applicant	
E =	0.00249		Annual
	Tons	EF	TSP
Load Ore	6,000,000	0.00249	14,958
Load Waste	24,000,000	0.00249	59,833
Unload Ore	0	0.00249	0
Unload Waste	24,000,000	0.00249	59,833
Max Hourly ore loaded	2000		
Max Hrly wste loaded or unlo	2500		
Max hourly emissions, ore	4.99	Lb/Hr	
Max hourly emissions, waste	6.23		

LOADING EMISSIONS

	ORE LAB TEST	WASTE LAB TEST	LB/HR	ORE LB/YR	WASTE LB/YR	TOTAL LB/YR
Cr 6	5.000E-07	5.000E-07	5.610E-06	7.479E-03	2.992E-02	3.740E-02
Hg	1.143E-06	3.250E-06	1.283E-05	1.710E-02	1.945E-01	2.116E-01
Se	1.532E-07	1.875E-07	1.719E-06	2.291E-03	1.122E-02	1.351E-02
As	4.362E-05	8.525E-05	4.895E-04	6.525E-01	5.101E+00	5.753E+00
Be	5.142E-05	3.125E-07	5.769E-04	7.691E-01	1.870E-02	7.878E-01
Cd	1.525E-06	3.075E-06	1.711E-05	2.281E-02	1.840E-01	2.068E-01
Cu	3.767E-06	7.150E-06	4.226E-05	5.634E-02	4.278E-01	4.841E-01
Pb	2.973E-05	1.303E-05	3.336E-04	4.448E-01	7.793E-01	1.224E+00
Ni	2.600E-06	2.275E-06	2.917E-05	3.889E-02	1.361E-01	1.750E-01
Mn	7.830E-05	7.830E-05	8.785E-04	1.171E+00	4.685E+00	5.856E+00
Zn	5.733E-06	1.093E-05	6.433E-05	8.576E-02	6.537E-01	7.394E-01

UNLOADING EMISSIONS

	ORE LAB TEST	WASTE LAB TEST	LB/HR	Ore LB/YR	Waste LB/YR	TOTAL LB/YR
Cr 6	5.0000E-07	5.0000E-07	5.610E-06	0.000E+00	2.992E-02	2.992E-02
Hg	1.1433E-06	3.2500E-06	1.283E-05	0.000E+00	1.945E-01	1.945E-01
Se	1.5317E-07	1.8750E-07	1.719E-06	0.000E+00	1.122E-02	1.122E-02
As	4.3623E-05	8.5250E-05	4.895E-04	0.000E+00	5.101E+00	5.101E+00
Be	5.1417E-05	3.1250E-07	5.769E-04	0.000E+00	1.870E-02	1.870E-02
Cd	1.5250E-06	3.0750E-06	1.711E-05	0.000E+00	1.840E-01	1.840E-01
Cu	3.7667E-06	7.1500E-06	4.226E-05	0.000E+00	4.278E-01	4.278E-01
Pb	2.9733E-05	1.3025E-05	3.336E-04	0.000E+00	7.793E-01	7.793E-01
Ni	2.6000E-06	2.2750E-06	2.917E-05	0.000E+00	1.361E-01	1.361E-01
Mn	7.8300E-05	7.8300E-05	8.785E-04	0.000E+00	4.685E+00	4.685E+00
Zn	5.7333E-06	1.0925E-05	6.433E-05	0.000E+00	6.537E-01	6.537E-01

SUM OF TRUCK LOADING AND UNLOADING

ID#	SUBSTANCE	LB/HR	ORE LB/YR	WASTE LB/YR	Total LB/YR
18540299	Cr 6	5.610E-06	7.479E-03	5.983E-02	6.731E-02
7439976	Hg	1.283E-05	1.710E-02	3.889E-01	4.060E-01
7782492	Se	1.719E-06	2.291E-03	2.244E-02	2.473E-02
7440382	As	4.895E-04	6.525E-01	1.020E+01	1.085E+01
7440417	Be	5.769E-04	7.691E-01	3.740E-02	8.065E-01
7440439	Cd	1.711E-05	2.281E-02	3.680E-01	3.908E-01
7440508	Cu	4.226E-05	5.634E-02	8.556E-01	9.120E-01
7439921	Pb	3.336E-04	4.448E-01	1.559E+00	2.003E+00
7440020	Ni	2.917E-05	3.889E-02	2.722E-01	3.111E-01
7439965	Mn	8.785E-04	1.171E+00	9.370E+00	1.054E+01
7440666	Zn	6.433E-05	8.576E-02	1.307E+00	1.393E+00

GOLDEN QUEEN MINING COMPANY

Estimated wind erosion emissions from existing disturbances

Emissions from wind erosion of the overburden piles have been estimated using the equation found in AP-42 Section 13.2.5 "Industrial Wind Erosion. Peak wind information was obtained from Edwards Air Force base for the period January 1990 through July 1994. This information was used along with the Threshold Friction velocities found in table 13.2.5-2 to determine the emissions per event and determine an average emissions per year per acre.

EF = k x {Summation}(Pi)

P = 58(u* - ut*)^2 + 25(u* - ut*) for each event

where: P = erosion potential corresponding to the observed fastest mile of wind

u* = friction velocity

ut* = threshold friction veloci 1.02 m/s

Number of events are all days with wind speed in excess of 43.05 mph

	1990	1991	1992	1993	1994(1)
# Events	6	6	2	3	2

(1) through July 1994

PM10	Ann Average	1st Q	2nd Q	3rd Q	4th Q
EF tons/acre/year	0.028	0.008	0.016	0.000	0.004

	Acres
Other Disturbances	188.00
TOTAL	**188.00**

SURFACE AREA (ACRES) 188.00

PM10 Annual emissions (lb/yr) 10,500

GOLDEN QUEEN MINING COMPANY

Estimated wind erosion emissions from existing disturbances

Emissions from wind erosion of the existing tailings pile have been estimated using the equation found in AP-42 Section 13.2.5 "Industrial Wind Erosion. Peak wind information was obtained from Edwards Air Force base for the period January 1990 through July 1994. This information was used along with the Threshold Friction velocities found in table 13.2.5-2 to determine the emissions per event and determine an average emissions per year per acre. The tailings pile is composed of fine material remaining after historical mining activity. The threshold friction velocity of this type of material is expected to resemble ground coal with a lower threshold than the normal overburden piles.

EF = k x {Summation}(Pi)

P = 58(u* - ut*)^2 + 25(u* - ut*) for each event

where: P = erosion potential corresponding to the observed fastest mile of wind

u* = friction velocity

ut* = threshold friction velocity 0.55 m/s

Number of events are all days with wind speed in excess of 23.21 mph

	1990	1991	1992	1993	1994(1)
# Events	160	151	184	229	163

(1) through July 1994

PM10	Ann Average	1st Q	2nd Q	3rd Q	4th Q
EF tons/acre/year	2.866	0.597	1.227	0.534	0.509

	Acres
Tailings Pile	22.00
TOTAL	22.00

SURFACE AREA (ACRES) 22.00

PM10 Annual emissions (lb/yr) 126,100

APPENDIX F

BEE-Line ISCST3 "BEEST" Version 4.0

Input File - G:\BEEST\GQ\FENCE.DTA
Output File - G:\BEEST\GQ\FENCE.LST
Met File - g:\METDATA\SOL\SOL91M.AS

Number of sources - 40
Number of source groups - 53
Number of receptors - 367

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
BGHSE1	0	0.18050E+00	390660.0	3872330.0	908.3	6.71	305.00	21.53	1.00	NO	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
BLSPIT1	0	0.19780E+02	390300.0	3872374.0	960.1	50.00	93.02	23.26	SEASON
BLSPIT2	0	0.19780E+02	390553.0	3872050.0	975.4	50.00	93.02	23.26	SEASON
BLSPIT3	0	0.19780E+02	391726.0	3871973.0	1127.8	50.00	93.02	23.26	SEASON
BLSPIT4	0	0.19780E+02	391015.0	3871607.0	1097.3	50.00	93.02	23.26	SEASON
BLSPIT5	0	0.19780E+02	391400.0	3871240.0	1097.3	50.00	93.02	23.26	SEASON
BLSPIT6	0	0.19780E+02	391000.0	3871240.0	1097.3	50.00	93.02	23.26	SEASON

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
DRLPIT1	0	0.30170E-07	390138.0	3872375.0	960.1	2.00	400.00	250.00	45.00	0.00	SEASON
DRLPIT2	0	0.30170E-07	390421.0	3872091.0	975.4	2.00	400.00	250.00	45.00	0.00	SEASON
DRLPIT3	0	0.30182E-07	390876.0	3871798.0	1036.2	2.00	1100.00	350.00	0.00	0.00	SEASON
DRLPIT4	0	0.30942E-07	390640.0	3871432.0	1097.3	2.00	1350.00	350.00	0.00	0.00	SEASON
DRLPIT5	0	0.30171E-07	391200.0	3871050.0	1097.3	2.00	400.00	380.00	0.00	0.00	SEASON
DRLPIT6	0	0.30171E-07	390800.0	3871050.0	1097.3	2.00	400.00	380.00	0.00	0.00	SEASON
TRLPIT1	0	0.49140E-06	390138.0	3872375.0	960.1	6.00	400.00	250.00	45.00	0.00	SEASON
TRLPIT2	0	0.49140E-06	390421.0	3872091.0	975.4	6.00	400.00	250.00	45.00	0.00	SEASON
TRLPIT3	0	0.49143E-06	390876.0	3871798.0	1036.2	6.00	1100.00	350.00	0.00	0.00	SEASON
TRLPIT4	0	0.49143E-06	390640.0	3871432.0	1097.3	6.00	1350.00	350.00	0.00	0.00	SEASON
TRLPIT5	0	0.49138E-06	391200.0	3871050.0	1097.3	6.00	400.00	380.00	0.00	0.00	SEASON
TRLPIT6	0	0.49138E-06	390800.0	3871050.0	1097.3	6.00	400.00	380.00	0.00	0.00	SEASON
HAUL_1	0	0.11676E-05	390138.0	3872375.0	960.1	2.00	400.00	62.50	45.00	0.00	SEASON
HAUL_2	0	0.11676E-05	390421.0	3872091.0	975.4	2.00	400.00	62.50	45.00	0.00	SEASON
HAUL_3	0	0.11678E-05	390876.0	3871973.0	1036.2	2.00	1100.00	87.50	0.00	0.00	SEASON
HAUL_4	0	0.11674E-05	390640.0	3871607.0	1097.3	2.00	1350.00	87.50	0.00	0.00	SEASON
HAUL_5	0	0.11679E-05	391200.0	3871240.0	1097.3	2.00	400.00	95.00	0.00	0.00	SEASON
HAUL_6	0	0.11679E-05	390800.0	3871240.0	1097.3	2.00	400.00	95.00	0.00	0.00	SEASON
TRU_WST1	0	0.24028E-06	390273.0	3871355.0	975.4	2.00	375.00	575.00	-5.00	0.00	SEASON
TRU_WST2	0	0.24035E-06	390364.0	3870483.0	1066.8	2.00	525.00	825.00	-10.00	0.00	SEASON
TRU_WST3	0	0.24026E-06	390885.0	3870573.0	1127.8	2.00	300.00	457.00	0.00	0.00	SEASON
TRU_WST4	0	0.24030E-06	391190.0	3870573.0	1127.8	2.00	550.00	467.00	0.00	0.00	SEASON
TRU_WST5	0	0.24022E-06	392143.0	3871161.0	1005.8	2.00	545.00	925.00	-10.00	0.00	SEASON
DZG_W1	0	0.15379E-06	390273.0	3871355.0	975.4	4.00	375.00	575.00	-5.00	0.00	SEASON
DZG_W2	0	0.15377E-06	390364.0	3870483.0	1066.8	4.00	525.00	825.00	-10.00	0.00	SEASON
DZG_W3	0	0.15376E-06	390885.0	3870573.0	1127.8	4.00	300.00	457.00	0.00	0.00	SEASON
DZG_W4	0	0.15379E-06	391190.0	3870573.0	1127.8	4.00	550.00	467.00	0.00	0.00	SEASON
DZG_W5	0	0.15377E-06	392143.0	3871161.0	1005.8	4.00	545.00	925.00	-10.00	0.00	SEASON
ERSN_W1	0	0.76568E-07	390273.0	3871355.0	975.4	5.00	375.00	575.00	-5.00	0.00	
ERSN_W2	0	0.76560E-07	390364.0	3870483.0	1066.8	5.00	525.00	825.00	-10.00	0.00	
ERSN_W3	0	0.76586E-07	390885.0	3870573.0	1127.8	5.00	300.00	457.00	0.00	0.00	
ERSN_W4	0	0.76582E-07	391190.0	3870573.0	1127.8	5.00	550.00	467.00	0.00	0.00	
ERSN_W5	0	0.76568E-07	392143.0	3871161.0	1005.8	5.00	545.00	925.00	-10.00	0.00	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT1 , BLSPIT2 , BLSPIT3 , BLSPIT4 , BLSPIT5 , BL TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HA BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ER ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
DRLPIT1	DRLPIT1 ,
DRLPIT2	DRLPIT2 ,
DRLPIT3	DRLPIT3 ,

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DRLPIT4    DRLPIT4 ,
DRLPIT5    DRLPIT5 ,
DRLPIT6    DRLPIT6 ,
BLSPIT1    BLSPIT1 ,
BLSPIT2    BLSPIT2 ,
BLSPIT3    BLSPIT3 ,
BLSPIT4    BLSPIT4 ,
BLSPIT5    BLSPIT5 ,
BLSPIT6    BLSPIT6 ,
TRLPIT1    TRLPIT1 ,
TRLPIT2    TRLPIT2 ,
TRLPIT3    TRLPIT3 ,
TRLPIT4    TRLPIT4 ,
TRLPIT5    TRLPIT5 ,
TRLPIT6    TRLPIT6 ,
HAUL_1     HAUL_1  ,
HAUL_2     HAUL_2  ,
HAUL_3     HAUL_3  ,
HAUL_4     HAUL_4  ,
HAUL_5     HAUL_5  ,
HAUL_6     HAUL_6  ,
BGHSE1     BGHSE1  ,
TRU_WST1   TRU_WST1,
TRU_WST2   TRU_WST2,
TRU_WST3   TRU_WST3,
TRU_WST4   TRU_WST4,
TRU_WST5   TRU_WST5,
DZG_W1     DZG_W1  ,
DZG_W2     DZG_W2  ,
DZG_W3     DZG_W3  ,
DZG_W4     DZG_W4  ,
DZG_W5     DZG_W5  ,
ERSN_W1    ERSN_W1 ,
ERSN_W2    ERSN_W2 ,
ERSN_W3    ERSN_W3 ,
ERSN_W4    ERSN_W4 ,
ERSN_W5    ERSN_W5 ,
PIT_1      DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , BLSPIT1 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , HAUL_1  ,
           HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  ,
           DZG_W3  , DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_2      DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , BLSPIT2 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , HAUL_1  ,
           HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  ,
           DZG_W3  , DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_3      DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT3 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 ,
           TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  , BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4,
           TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_4      DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT4 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 ,
           TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  , BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4,
           TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_5      DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT5 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 ,
           TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  , BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4,
           TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_6      DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT6 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  ,
           HAUL_4  , HAUL_5  , HAUL_6  , BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  ,
           DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
```

DRILLING DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 ,

LOADING TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 ,

HAULING HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 ,

UNLOADG TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5,

DOZING DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 ,

EROSION ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

GROUP ID			AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR,	YR,	ZELEV,	ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	27.54688	ON 91113024: AT (	391247.00,	3870518.00,	969.26,	0.00)	DC	NA
DRLPIT1	HIGH	1ST HIGH VALUE IS	0.19440	ON 91010424: AT (	390203.00,	3872720.00,	862.58,	0.00)	DC	NA
DRLPIT2	HIGH	1ST HIGH VALUE IS	0.08088	ON 91030424: AT (	390669.00,	3872895.00,	859.54,	0.00)	DC	NA
DRLPIT3	HIGH	1ST HIGH VALUE IS	0.61132	ON 91102924: AT (	391846.00,	3872159.00,	967.74,	0.00)	DC	NA
DRLPIT4	HIGH	1ST HIGH VALUE IS	0.25134	ON 91102224: AT (	392694.00,	3871346.00,	899.16,	0.00)	DC	NA
DRLPIT5	HIGH	1ST HIGH VALUE IS	0.16775c	ON 91120924: AT (	391842.00,	3870521.00,	950.98,	0.00)	DC	NA
DRLPIT6	HIGH	1ST HIGH VALUE IS	0.16652c	ON 91120924: AT (	391445.00,	3870519.00,	923.54,	0.00)	DC	NA
BLSPIT1	HIGH	1ST HIGH VALUE IS	2.57505c	ON 91122724: AT (	391044.00,	3870310.00,	1005.84,	0.00)	DC	NA
BLSPIT2	HIGH	1ST HIGH VALUE IS	2.87681	ON 91112424: AT (	392607.00,	3870689.00,	1048.51,	0.00)	DC	NA
BLSPIT3	HIGH	1ST HIGH VALUE IS	2.63266	ON 91111424: AT (	391846.00,	3872159.00,	967.74,	0.00)	DC	NA
BLSPIT4	HIGH	1ST HIGH VALUE IS	1.48739	ON 91010624: AT (	390904.00,	3872902.00,	859.54,	0.00)	DC	NA
BLSPIT5	HIGH	1ST HIGH VALUE IS	1.59179	ON 91121324: AT (	392010.00,	3870521.00,	969.26,	0.00)	DC	NA
BLSPIT6	HIGH	1ST HIGH VALUE IS	1.38981	ON 91121324: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
TRLPIT1	HIGH	1ST HIGH VALUE IS	2.25655	ON 91010424: AT (	390203.00,	3872720.00,	862.58,	0.00)	DC	NA
TRLPIT2	HIGH	1ST HIGH VALUE IS	1.19805	ON 91030424: AT (	390669.00,	3872895.00,	859.54,	0.00)	DC	NA
TRLPIT3	HIGH	1ST HIGH VALUE IS	4.76046	ON 91102924: AT (	391846.00,	3872159.00,	967.74,	0.00)	DC	NA
TRLPIT4	*HIGH	1ST HIGH VALUE IS	3.72557	ON 91102224: AT (	392694.00,	3871346.00,	899.16,	0.00)	DC	NA
TRLPIT5	HIGH	1ST HIGH VALUE IS	2.44488c	ON 91120924: AT (	391842.00,	3870521.00,	950.98,	0.00)	DC	NA
TRLPIT6	HIGH	1ST HIGH VALUE IS	2.42886c	ON 91120924: AT (	391445.00,	3870519.00,	923.54,	0.00)	DC	NA
HAUL_1	HIGH	1ST HIGH VALUE IS	2.95072c	ON 91102724: AT (	390027.00,	3872472.00,	868.68,	0.00)	DC	NA
HAUL_2	HIGH	1ST HIGH VALUE IS	0.85201	ON 91010424: AT (	390352.00,	3872832.00,	859.54,	0.00)	DC	NA
HAUL_3	HIGH	1ST HIGH VALUE IS	6.13475	ON 91102924: AT (	391846.00,	3872159.00,	967.74,	0.00)	DC	NA
HAUL_4	HIGH	1ST HIGH VALUE IS	3.63348	ON 91012224: AT (	392670.00,	3871765.00,	883.92,	0.00)	DC	NA
HAUL_5	HIGH	1ST HIGH VALUE IS	1.66902c	ON 91120924: AT (	391842.00,	3870521.00,	950.98,	0.00)	DC	NA
HAUL_6	HIGH	1ST HIGH VALUE IS	1.56599c	ON 91120924: AT (	391445.00,	3870519.00,	923.54,	0.00)	DC	NA
BGHSE1	HIGH	1ST HIGH VALUE IS	2.00324	ON 91111124: AT (	391846.00,	3872159.00,	967.74,	0.00)	DC	NA
TRU_WST1	HIGH	1ST HIGH VALUE IS	2.51933	ON 91092924: AT (	390209.00,	3871270.00,	874.78,	0.00)	DC	NA
TRU_WST2	HIGH	1ST HIGH VALUE IS	3.65816	ON 91112424: AT (	391049.00,	3870518.00,	950.98,	0.00)	DC	NA
TRU_WST3	HIGH	1ST HIGH VALUE IS	4.44286c	ON 91120924: AT (	391049.00,	3870518.00,	950.98,	0.00)	DC	NA
TRU_WST4	HIGH	1ST HIGH VALUE IS	6.14394c	ON 91120924: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
TRU_WST5	HIGH	1ST HIGH VALUE IS	6.68180	ON 91112424: AT (	392694.00,	3871346.00,	899.16,	0.00)	DC	NA
DZG_W1	HIGH	1ST HIGH VALUE IS	0.23891	ON 91092924: AT (	390209.00,	3871270.00,	874.78,	0.00)	DC	NA
DZG_W2	HIGH	1ST HIGH VALUE IS	0.37006	ON 91112424: AT (	391049.00,	3870518.00,	950.98,	0.00)	DC	NA
DZG_W3	HIGH	1ST HIGH VALUE IS	0.31858	ON 91010124: AT (	391049.00,	3870518.00,	950.98,	0.00)	DC	NA
DZG_W4	HIGH	1ST HIGH VALUE IS	0.47724c	ON 91120924: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
DZG_W5	HIGH	1ST HIGH VALUE IS	0.53416c	ON 91120924: AT (	392694.00,	3871346.00,	899.16,	0.00)	DC	NA
ERSN_W1	HIGH	1ST HIGH VALUE IS	0.91196	ON 91092924: AT (	390209.00,	3871270.00,	874.78,	0.00)	DC	NA
ERSN_W2	HIGH	1ST HIGH VALUE IS	1.47210	ON 91112424: AT (	391049.00,	3870518.00,	950.98,	0.00)	DC	NA
ERSN_W3	HIGH	1ST HIGH VALUE IS	1.09738	ON 91122424: AT (	391247.00,	3870518.00,	969.26,	0.00)	DC	NA
ERSN_W4	HIGH	1ST HIGH VALUE IS	1.66937c	ON 91120924: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
ERSN_W5	HIGH	1ST HIGH VALUE IS	1.96738c	ON 91120924: AT (	392694.00,	3871346.00,	899.16,	0.00)	DC	NA
PIT_1	HIGH	1ST HIGH VALUE IS	24.47840c	ON 91120924: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
PIT_2	HIGH	1ST HIGH VALUE IS	24.38030c	ON 91120924: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
PIT_3	HIGH	1ST HIGH VALUE IS	26.82188c	ON 91120924: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
PIT_4	HIGH	1ST HIGH VALUE IS	26.81984c	ON 91120924: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
PIT_5	HIGH	1ST HIGH VALUE IS	26.81984c	ON 91120924: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
PIT_6	HIGH	1ST HIGH VALUE IS	26.03649c	ON 91120924: AT (	391643.00,	3870520.00,	932.69,	0.00)	DC	NA
DRILLING	HIGH	1ST HIGH VALUE IS	0.86478	ON 91102924: AT (	391846.00,	3872159.00,	967.74,	0.00)	DC	NA
LOADING	HIGH	1ST HIGH VALUE IS	9.05844c	ON 91120924: AT (	391842.00,	3870521.00,	950.98,	0.00)	DC	NA
HAULING	HIGH	1ST HIGH VALUE IS	8.63301	ON 91102924: AT (	391846.00,	3872159.00,	967.74,	0.00)	DC	NA
UNLOADG	HIGH	1ST HIGH VALUE IS	8.56973c	ON 91120924: AT (	391049.00,	3870518.00,	950.98,	0.00)	DC	NA
DOZING	HIGH	1ST HIGH VALUE IS	0.74727c	ON 91120924: AT (	391049.00,	3870518.00,	950.98,	0.00)	DC	NA
EROSION	HIGH	1ST HIGH VALUE IS	2.30770c	ON 91120924: AT (	391049.00,	3870518.00,	950.98,	0.00)	DC	NA

APPENDIX G

```
**BEE-Line Software: BEEST for Windows data input file
**                  Date: 11/12/96  Time: 11:06:15 AM
NO ECHO

 BEE-Line ISCST3 "BEEST" Version 4.0

 Input File - G:\BEEST\GQ\CLASS1.DTA
Output File - G:\BEEST\GQ\CLASS1.LST
   Met File - g:\METDATA\SOL\SOL91M.AS


 *** Message Summary For ISC3 Model Setup ***

 --------- Summary of Total Messages --------

A Total of          0 Fatal Error Message(s)
A Total of          2 Warning Message(s)
A Total of          0 Informational Message(s)

   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***

   ********   WARNING MESSAGES   ********
SO W391    59 APARM :Aspect ratio (L/W) of area source greater than 10  HAUL_3
SO W391    61 APARM :Aspect ratio (L/W) of area source greater than 10  HAUL_4

************************************
*** SETUP Finishes Successfully ***
************************************

 *** ISCST3 - VERSION 96113 ***    *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT         ***      11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average            ***      11:06:29
                                                                                                                PAGE   1
**MODELOPTs: CONC                           RURAL  ELEV                                         MSGPRO

                                           ***     MODEL SETUP OPTIONS SUMMARY      ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

  -- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses User-Specified Options:
          1. Final Plume Rise.
          2. Stack-tip Downwash.
          3. Buoyancy-induced Dispersion.
          4. Calms Processing Routine.
          5. Missing Data Processing Routine.
          6. User-Specified Wind Profile Exponents.
          7. User-Specified Vertical Potential Temperature Gradients.

**Model Accepts Receptors on ELEV Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates  1 Short Term Average(s) of:  24-HR
    and Calculates ANNUAL Averages

**This Run Includes:   40 Source(s);      7 Source Group(s); and      2 Receptor(s)

**The Model Assumes A Pollutant Type of:  PM-10

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
        Model Outputs Tables of ANNUAL Averages by Receptor
```

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 180.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

Input Runstream File: G:@BEEST@GQ@CLASS1.DTA ; **Output Print File: G:@BEEST@GQ@CLASS1.LST

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
BGHSE1	0	0.18050E+00	390660.0	3872330.0	908.3	6.71	305.00	21.53	1.00	NO	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
BLSPIT1	0	0.19780E+02	390300.0	3872374.0	960.1	50.00	93.02	23.26	SEASON
BLSPIT2	0	0.19780E+02	390553.0	3872050.0	975.4	50.00	93.02	23.26	SEASON
BLSPIT3	0	0.19780E+02	391726.0	3871973.0	1127.8	50.00	93.02	23.26	SEASON
BLSPIT4	0	0.19780E+02	391015.0	3871607.0	1097.3	50.00	93.02	23.26	SEASON
BLSPIT5	0	0.19780E+02	391400.0	3871240.0	1097.3	50.00	93.02	23.26	SEASON
BLSPIT6	0	0.19780E+02	391000.0	3871240.0	1097.3	50.00	93.02	23.26	SEASON

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
DRLPIT1	0	0.30170E-07	390138.0	3872375.0	960.1	2.00	400.00	250.00	45.00	0.00	SEASON
DRLPIT2	0	0.30170E-07	390421.0	3872091.0	975.4	2.00	400.00	250.00	45.00	0.00	SEASON
DRLPIT3	0	0.30182E-07	390876.0	3871798.0	1036.2	2.00	1100.00	350.00	0.00	0.00	SEASON
DRLPIT4	0	0.30942E-07	390640.0	3871432.0	1097.3	2.00	1350.00	350.00	0.00	0.00	SEASON
DRLPIT5	0	0.30171E-07	391200.0	3871050.0	1097.3	2.00	400.00	380.00	0.00	0.00	SEASON
DRLPIT6	0	0.30171E-07	390800.0	3871050.0	1097.3	2.00	400.00	380.00	0.00	0.00	SEASON
TRLPIT1	0	0.49140E-06	390138.0	3872375.0	960.1	6.00	400.00	250.00	45.00	0.00	SEASON
TRLPIT2	0	0.49140E-06	390421.0	3872091.0	975.4	6.00	400.00	250.00	45.00	0.00	SEASON
TRLPIT3	0	0.49143E-06	390876.0	3871798.0	1036.2	6.00	1100.00	350.00	0.00	0.00	SEASON
TRLPIT4	0	0.49143E-06	390640.0	3871432.0	1097.3	6.00	1350.00	350.00	0.00	0.00	SEASON
TRLPIT5	0	0.49138E-06	391200.0	3871050.0	1097.3	6.00	400.00	380.00	0.00	0.00	SEASON
TRLPIT6	0	0.49138E-06	390800.0	3871050.0	1097.3	6.00	400.00	380.00	0.00	0.00	SEASON
HAUL_1	0	0.11676E-05	390138.0	3872375.0	960.1	2.00	400.00	62.50	45.00	0.00	SEASON

HAUL_2	0	0.11676E-05	390421.0	3872091.0	975.4	2.00	400.00	62.50	45.00	0.00	SEASON
HAUL_3	0	0.11678E-05	390876.0	3871973.0	1036.2	2.00	1100.00	87.50	0.00	0.00	SEASON
HAUL_4	0	0.11674E-05	390640.0	3871607.0	1097.3	2.00	1350.00	87.50	0.00	0.00	SEASON
HAUL_5	0	0.11679E-05	391200.0	3871240.0	1097.3	2.00	400.00	95.00	0.00	0.00	SEASON
HAUL_6	0	0.11679E-05	390800.0	3871240.0	1097.3	2.00	400.00	95.00	0.00	0.00	SEASON
TRU_WST1	0	0.24028E-06	390273.0	3871355.0	975.4	2.00	375.00	575.00	-5.00	0.00	SEASON
TRU_WST2	0	0.24035E-06	390364.0	3870483.0	1066.8	2.00	525.00	825.00	-10.00	0.00	SEASON
TRU_WST3	0	0.24026E-06	390885.0	3870573.0	1127.8	2.00	300.00	457.00	0.00	0.00	SEASON
TRU_WST4	0	0.24030E-06	391190.0	3870573.0	1127.8	2.00	550.00	467.00	0.00	0.00	SEASON
TRU_WST5	0	0.24022E-06	392143.0	3871161.0	1005.8	2.00	545.00	925.00	-10.00	0.00	SEASON
DZG_W1	0	0.15379E-06	390273.0	3871355.0	975.4	4.00	375.00	575.00	-5.00	0.00	SEASON
DZG_W2	0	0.15377E-06	390364.0	3870483.0	1066.8	4.00	525.00	825.00	-10.00	0.00	SEASON
DZG_W3	0	0.15376E-06	390885.0	3870573.0	1127.8	4.00	300.00	457.00	0.00	0.00	SEASON
DZG_W4	0	0.15379E-06	391190.0	3870573.0	1127.8	4.00	550.00	467.00	0.00	0.00	SEASON
DZG_W5	0	0.15377E-06	392143.0	3871161.0	1005.8	4.00	545.00	925.00	-10.00	0.00	SEASON
ERSN_W1	0	0.76568E-07	390273.0	3871355.0	975.4	5.00	375.00	575.00	-5.00	0.00	
ERSN_W2	0	0.76560E-07	390364.0	3870483.0	1066.8	5.00	525.00	825.00	-10.00	0.00	
ERSN_W3	0	0.76586E-07	390885.0	3870573.0	1127.8	5.00	300.00	457.00	0.00	0.00	
ERSN_W4	0	0.76582E-07	391190.0	3870573.0	1127.8	5.00	550.00	467.00	0.00	0.00	
ERSN_W5	0	0.76568E-07	392143.0	3871161.0	1005.8	5.00	545.00	925.00	-10.00	0.00	

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**MODELOPTs: CONC   RURAL ELEV   MSGPRO

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT1 , BLSPIT2 , BLSPIT3 , BLSPIT4 , BLSPIT5 , BLSPIT6 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_1	DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , BLSPIT1 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_2	DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , BLSPIT2 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_3	DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT3 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_4	DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT4 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_5	DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT5 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,
PIT_6	DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT6 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,

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**MODELOPTs: CONC   RURAL ELEV   MSGPRO

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY *

	WINTER	SPRING	SUMMER	FALL
SOURCE ID = DRLPIT1 ; SOURCE TYPE = AREA :	.83330E+00	.83330E+00	.83330E+00	.83330E+00
SOURCE ID = DRLPIT2 ; SOURCE TYPE = AREA :				

```
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = DRLPIT3  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = DRLPIT4  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = DRLPIT5  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = DRLPIT6  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = BLSPIT1  ;  SOURCE TYPE = VOLUME   :
                                   .41700E-01     .41700E-01     .41700E-01     .41700E-01

SOURCE ID = BLSPIT2  ;  SOURCE TYPE = VOLUME   :
                                   .41700E-01     .41700E-01     .41700E-01     .41700E-01

SOURCE ID = BLSPIT3  ;  SOURCE TYPE = VOLUME   :
                                   .41700E-01     .41700E-01     .41700E-01     .41700E-01

SOURCE ID = BLSPIT4  ;  SOURCE TYPE = VOLUME   :
                                   .41700E-01     .41700E-01     .41700E-01     .41700E-01

SOURCE ID = BLSPIT5  ;  SOURCE TYPE = VOLUME   :
                                   .41700E-01     .41700E-01     .41700E-01     .41700E-01

SOURCE ID = BLSPIT6  ;  SOURCE TYPE = VOLUME   :
                                   .41700E-01     .41700E-01     .41700E-01     .41700E-01

SOURCE ID = TRLPIT1  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = TRLPIT2  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = TRLPIT3  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = TRLPIT4  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = TRLPIT5  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = TRLPIT6  ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = HAUL_1   ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = HAUL_2   ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = HAUL_3   ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = HAUL_4   ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = HAUL_5   ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = HAUL_6   ;  SOURCE TYPE = AREA     :
                                   .83330E+00     .83330E+00     .83330E+00     .83330E+00

SOURCE ID = TRU_WST1 ;  SOURCE TYPE = AREA     :
                                   .66670E+00     .66670E+00     .66670E+00     .66670E+00

SOURCE ID = TRU_WST2 ;  SOURCE TYPE = AREA     :
                                   .66670E+00     .66670E+00     .66670E+00     .66670E+00

SOURCE ID = TRU_WST3 ;  SOURCE TYPE = AREA     :
                                   .66670E+00     .66670E+00     .66670E+00     .66670E+00

SOURCE ID = TRU_WST4 ;  SOURCE TYPE = AREA     :
                                   .66670E+00     .66670E+00     .66670E+00     .66670E+00
```

SOURCE ID = TRU_WST5 ; SOURCE TYPE = AREA :
.66670E+00 .66670E+00 .66670E+00 .66670E+00

SOURCE ID = DZG_W1 ; SOURCE TYPE = AREA :
.11650E+00 .11650E+00 .11650E+00 .11650E+00

SOURCE ID = DZG_W2 ; SOURCE TYPE = AREA :
.11650E+00 .11650E+00 .11650E+00 .11650E+00

SOURCE ID = DZG_W3 ; SOURCE TYPE = AREA :
.11650E+00 .11650E+00 .11650E+00 .11650E+00

SOURCE ID = DZG_W4 ; SOURCE TYPE = AREA :
.11650E+00 .11650E+00 .11650E+00 .11650E+00

SOURCE ID = DZG_W5 ; SOURCE TYPE = AREA :
.11650E+00 .11650E+00 .11650E+00 .11650E+00

**MODELOPTs: CONC RURAL ELEV MSGPRO

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(394000.0, 3953000.0, 853.4, 0.0); (420000.0, 3802000.0, 853.4, 0.0);

**MODELOPTs: CONC RURAL ELEV MSGPRO

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 91 1 1 0
AND END DATE: 91 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY WIND SPEED CATEGORY

CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: g:\METDATA\SOL\SOL91M.ASC FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 98765 UPPER AIR STATION NO.: 24128
NAME: UNKNOWN NAME: WINNEMUCCA,NV
YEAR: 1991 YEAR: 1991

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
91	1	1	1	339.6	2.57	270.4	6	340.5	23.0	0.0000	0.0	0.0000	0	0.00
91	1	1	2	341.2	2.57	271.5	6	337.1	23.0	0.0000	0.0	0.0000	0	0.00
91	1	1	3	346.3	2.57	273.1	6	333.8	23.0	0.0000	0.0	0.0000	0	0.00
91	1	1	4	357.3	1.03	272.6	7	330.4	23.0	0.0000	0.0	0.0000	0	0.00
91	1	1	5	11.4	1.03	269.3	7	327.1	23.0	0.0000	0.0	0.0000	0	0.00
91	1	1	6	300.7	1.00	267.6	7	323.7	23.0	0.0000	0.0	0.0000	0	0.00
91	1	1	7	12.6	1.54	268.7	7	320.4	23.0	0.0000	0.0	0.0000	0	0.00
91	1	1	8	343.7	2.06	273.7	6	73.6	49.6	0.0000	0.0	0.0000	0	0.00
91	1	1	9	7.9	3.09	277.0	5	73.6	90.9	0.0000	0.0	0.0000	0	0.00
91	1	1	10	17.0	2.57	278.2	4	118.3	132.1	0.0000	0.0	0.0000	0	0.00
91	1	1	11	13.4	3.09	280.4	3	162.9	173.3	0.0000	0.0	0.0000	0	0.00
91	1	1	12	28.0	2.57	281.5	3	207.6	214.5	0.0000	0.0	0.0000	0	0.00
91	1	1	13	17.5	3.60	283.2	3	252.3	255.8	0.0000	0.0	0.0000	0	0.00
91	1	1	14	34.3	3.09	283.2	3	297.0	297.0	0.0000	0.0	0.0000	0	0.00
91	1	1	15	40.1	2.06	283.2	4	297.0	297.0	0.0000	0.0	0.0000	0	0.00
91	1	1	16	41.5	1.54	282.0	3	297.0	297.0	0.0000	0.0	0.0000	0	0.00
91	1	1	17	25.5	1.54	276.5	4	296.0	296.0	0.0000	0.0	0.0000	0	0.00
91	1	1	18	347.2	1.03	272.6	5	294.2	243.7	0.0000	0.0	0.0000	0	0.00
91	1	1	19	305.0	1.03	271.5	6	292.3	208.9	0.0000	0.0	0.0000	0	0.00
91	1	1	20	337.2	1.00	270.9	7	290.4	174.1	0.0000	0.0	0.0000	0	0.00
91	1	1	21	25.4	1.03	269.8	7	288.6	139.3	0.0000	0.0	0.0000	0	0.00
91	1	1	22	319.1	1.03	269.3	7	286.7	104.5	0.0000	0.0	0.0000	0	0.00
91	1	1	23	318.6	1.00	269.8	7	284.9	69.8	0.0000	0.0	0.0000	0	0.00
91	1	1	24	131.1	1.00	270.4	7	283.0	35.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** THE ANNUAL (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT1 ,
BLSPIT2 , BLSPIT3 , BLSPIT4 , BLSPIT5 , BLSPIT6 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 ,
HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
394000.00	3953000.00	0.00814	420000.00	3802000.00	0.01232

*** THE ANNUAL (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PIT_1 ***

INCLUDING SOURCE(S): DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , BLSPIT1 , TRLPIT1 ,
TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , BGHSE1 , TRU_WST1, TRU_WST2,
TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
394000.00	3953000.00	0.00533	420000.00	3802000.00	0.01031

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**MODELOPTs: CONC RURAL ELEV MSGPRO

*** THE ANNUAL (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PIT_2 ***
INCLUDING SOURCE(S): DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , BLSPIT2 , TRLPIT1 ,
TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , BGHSE1 , TRU_WST1, TRU_WST2,
TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
394000.00	3953000.00	0.00528	420000.00	3802000.00	0.01018

*** ISCST3 - VERSION 96113 *** *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT *** 11/12/96
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**MODELOPTs: CONC RURAL ELEV MSGPRO

*** THE ANNUAL (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PIT_3 ***
INCLUDING SOURCE(S): DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT3 ,
TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 ,
BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
394000.00	3953000.00	0.00541	420000.00	3802000.00	0.01052

*** ISCST3 - VERSION 96113 *** *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT *** 11/12/96
*** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average *** 11:06:29
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**MODELOPTs: CONC RURAL ELEV MSGPRO

*** THE ANNUAL (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PIT_4 ***
INCLUDING SOURCE(S): DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT4 ,
TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 ,
BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
394000.00	3953000.00	0.00542	420000.00	3802000.00	0.01055

*** ISCST3 - VERSION 96113 *** *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT *** 11/12/96
*** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average *** 11:06:29
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**MODELOPTs: CONC RURAL ELEV MSGPRO

*** THE ANNUAL (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PIT_5 ***
INCLUDING SOURCE(S): DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT5 ,
TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 ,
BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

```
    X-COORD (M)  Y-COORD (M)         CONC                        X-COORD (M)  Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     394000.00    3953000.00        0.00543                       420000.00    3802000.00        0.01055

 *** ISCST3 - VERSION 96113 ***    *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT              ***        11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average                 ***        11:06:29
                                                                                                                      PAGE  22
 **MODELOPTs: CONC                        RURAL  ELEV                                              MSGPRO

                           *** THE ANNUAL ( 8760 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: PIT_6     ***
                               INCLUDING SOURCE(S):         DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT6 , TRLPIT3 , TRLPIT4 ,
        TRLPIT5 , TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  , BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3,
        TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM-10    IN MICROGRAMS/M**3                          **

    X-COORD (M)  Y-COORD (M)         CONC                        X-COORD (M)  Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     394000.00    3953000.00        0.00513                       420000.00    3802000.00        0.00993

 *** ISCST3 - VERSION 96113 ***    *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT              ***        11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average                 ***        11:06:29
                                                                                                                      PAGE  23
 **MODELOPTs: CONC                        RURAL  ELEV                                              MSGPRO

                           *** THE    1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL        ***
                               INCLUDING SOURCE(S):         DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT1 ,
        BLSPIT2 , BLSPIT3 , BLSPIT4 , BLSPIT5 , BLSPIT6 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1  ,
        HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  , BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5,  . . .  ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM-10    IN MICROGRAMS/M**3                          **

   X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)  Y-COORD (M)       CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    394000.00    3953000.00       0.22066  (91010624)              420000.00    3802000.00       0.22910c (91120524)

 *** ISCST3 - VERSION 96113 ***    *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT              ***        11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average                 ***        11:06:29
                                                                                                                      PAGE  24
 **MODELOPTs: CONC                        RURAL  ELEV                                              MSGPRO

                           *** THE    1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_1      ***
                               INCLUDING SOURCE(S):         DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , BLSPIT1 , TRLPIT1 ,
        TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , BGHSE1  , TRU_WST1, TRU_WST2,
        TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 ,  . . .  ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM-10    IN MICROGRAMS/M**3                          **

   X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)  Y-COORD (M)       CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    394000.00    3953000.00       0.11441  (91010624)              420000.00    3802000.00       0.20528c (91120524)

 *** ISCST3 - VERSION 96113 ***    *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT              ***        11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average                 ***        11:06:29
                                                                                                                      PAGE  25
 **MODELOPTs: CONC                        RURAL  ELEV                                              MSGPRO

                           *** THE    1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_2      ***
                               INCLUDING SOURCE(S):         DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , BLSPIT2 , TRLPIT1 ,
        TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , BGHSE1  , TRU_WST1, TRU_WST2,
        TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 ,  . . .  ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM-10    IN MICROGRAMS/M**3                          **

   X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)  Y-COORD (M)       CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    394000.00    3953000.00       0.11382  (91010624)              420000.00    3802000.00       0.20257c (91120524)
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*** ISCST3 - VERSION 96113 ***     *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT          ***     11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average            ***     11:06:29
                                                                                                               PAGE  26
**MODELOPTs: CONC                          RURAL  ELEV                                    MSGPRO

                    *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_3      ***
                        INCLUDING SOURCE(S):        DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT3 ,
    TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  ,
    BGBSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , . . . ,

                                   *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                              ** CONC OF PM-10     IN MICROGRAMS/M**3                             **

    X-COORD (M) Y-COORD (M)        CONC      (YYMMDDHH)               X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     394000.00   3953000.00        0.11835  (91010624)                 420000.00   3802000.00        0.21109c (91120524)

*** ISCST3 - VERSION 96113 ***     *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT          ***     11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average            ***     11:06:29
                                                                                                               PAGE  27
**MODELOPTs: CONC                          RURAL  ELEV                                    MSGPRO

                    *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_4      ***
                        INCLUDING SOURCE(S):        DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT4 ,
    TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  ,
    BGBSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , . . . ,

                                   *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                              ** CONC OF PM-10     IN MICROGRAMS/M**3                             **

    X-COORD (M) Y-COORD (M)        CONC      (YYMMDDHH)               X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     394000.00   3953000.00        0.11885  (91010624)                 420000.00   3802000.00        0.21122c (91120524)

*** ISCST3 - VERSION 96113 ***     *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT          ***     11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average            ***     11:06:29
                                                                                                               PAGE  28
**MODELOPTs: CONC                          RURAL  ELEV                                    MSGPRO

                    *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_5      ***
                        INCLUDING SOURCE(S):        DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT5 ,
    TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  ,
    BGBSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , . . . ,

                                   *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                              ** CONC OF PM-10     IN MICROGRAMS/M**3                             **

    X-COORD (M) Y-COORD (M)        CONC      (YYMMDDHH)               X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     394000.00   3953000.00        0.11850  (91010624)                 420000.00   3802000.00        0.21122c (91120524)

*** ISCST3 - VERSION 96113 ***     *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT          ***     11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average            ***     11:06:29
                                                                                                               PAGE  29
**MODELOPTs: CONC                          RURAL  ELEV                                    MSGPRO

                    *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_6      ***
                        INCLUDING SOURCE(S):        DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT6 , TRLPIT3 , TRLPIT4 ,
    TRLPIT5 , TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  , BGBSE1  , TRU_WST1, TRU_WST2, TRU_WST3,
    TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,

                                   *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                              ** CONC OF PM-10     IN MICROGRAMS/M**3                             **

    X-COORD (M) Y-COORD (M)        CONC      (YYMMDDHH)               X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     394000.00   3953000.00        0.11307  (91010624)                 420000.00   3802000.00        0.19815c (91120524)

*** ISCST3 - VERSION 96113 ***     *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT          ***     11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average            ***     11:06:29
                                                                                                               PAGE  30
**MODELOPTs: CONC                          RURAL  ELEV                                    MSGPRO

                    *** THE MAXIMUM    50  24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL        ***
                        INCLUDING SOURCE(S):        DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT1 ,
```

BLSPIT2 , BLSPIT3 , BLSPIT4 , BLSPIT5 , BLSPIT6 , TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1 ,
HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, . . . ,

** CONC OF PM-10 IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE
1.	0.22910c	(91120524)	AT (	420000.00, 3802000.00)	DC	26.	0.08635c	(91010924)	AT (	420000.00, 3802000.00)	DC
2.	0.22066	(91010624)	AT (	394000.00, 3953000.00)	DC	27.	0.08567c	(91122724)	AT (	420000.00, 3802000.00)	DC
3.	0.18955c	(91120924)	AT (	420000.00, 3802000.00)	DC	28.	0.08377	(91020124)	AT (	420000.00, 3802000.00)	DC
4.	0.18858	(91121024)	AT (	420000.00, 3802000.00)	DC	29.	0.07718	(91113024)	AT (	420000.00, 3802000.00)	DC
5.	0.17487	(91011824)	AT (	420000.00, 3802000.00)	DC	30.	0.07702	(91112324)	AT (	420000.00, 3802000.00)	DC
6.	0.14846	(91010124)	AT (	420000.00, 3802000.00)	DC	31.	0.07259	(91011824)	AT (	394000.00, 3953000.00)	DC
7.	0.14399	(91123024)	AT (	420000.00, 3802000.00)	DC	32.	0.07171	(91032624)	AT (	394000.00, 3953000.00)	DC
8.	0.14046	(91022324)	AT (	420000.00, 3802000.00)	DC	33.	0.06714	(91113024)	AT (	394000.00, 3953000.00)	DC
9.	0.13895	(91122424)	AT (	420000.00, 3802000.00)	DC	34.	0.06681	(91030424)	AT (	394000.00, 3953000.00)	DC
10.	0.13656	(91022024)	AT (	420000.00, 3802000.00)	DC	35.	0.06671	(91040524)	AT (	420000.00, 3802000.00)	DC
11.	0.13528	(91110724)	AT (	420000.00, 3802000.00)	DC	36.	0.06622	(91123124)	AT (	420000.00, 3802000.00)	DC
12.	0.13257	(91121024)	AT (	394000.00, 3953000.00)	DC	37.	0.06286	(91071424)	AT (	394000.00, 3953000.00)	DC
13.	0.12228	(91112324)	AT (	394000.00, 3953000.00)	DC	38.	0.06208	(91042824)	AT (	420000.00, 3802000.00)	DC
14.	0.12163	(91030224)	AT (	394000.00, 3953000.00)	DC	39.	0.06164	(91012224)	AT (	420000.00, 3802000.00)	DC
15.	0.12105	(91121424)	AT (	420000.00, 3802000.00)	DC	40.	0.05734	(91102324)	AT (	420000.00, 3802000.00)	DC
16.	0.11996	(91012524)	AT (	420000.00, 3802000.00)	DC	41.	0.05687	(91111924)	AT (	394000.00, 3953000.00)	DC
17.	0.11907	(91010824)	AT (	420000.00, 3802000.00)	DC	42.	0.05618	(91011424)	AT (	394000.00, 3953000.00)	DC
18.	0.11716	(91100924)	AT (	420000.00, 3802000.00)	DC	43.	0.05593	(91111624)	AT (	420000.00, 3802000.00)	DC
19.	0.10692	(91110824)	AT (	394000.00, 3953000.00)	DC	44.	0.05576	(91110424)	AT (	394000.00, 3953000.00)	DC
20.	0.10496	(91102424)	AT (	420000.00, 3802000.00)	DC	45.	0.05432	(91102424)	AT (	394000.00, 3953000.00)	DC
21.	0.10207	(91022824)	AT (	394000.00, 3953000.00)	DC	46.	0.05263	(91100424)	AT (	394000.00, 3953000.00)	DC
22.	0.09509	(91090324)	AT (	394000.00, 3953000.00)	DC	47.	0.05246	(91082424)	AT (	394000.00, 3953000.00)	DC
23.	0.09053	(91091924)	AT (	420000.00, 3802000.00)	DC	48.	0.05002	(91011224)	AT (	394000.00, 3953000.00)	DC
24.	0.08896	(91012624)	AT (	420000.00, 3802000.00)	DC	49.	0.04986	(91030324)	AT (	394000.00, 3953000.00)	DC
25.	0.08731	(91111824)	AT (	420000.00, 3802000.00)	DC	50.	0.04962	(91060524)	AT (	394000.00, 3953000.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 96113 *** *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT *** 11/12/96
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**MODELOPTs: CONC RURAL ELEV MSGPRO

*** THE MAXIMUM 50 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PIT_1 ***
INCLUDING SOURCE(S): DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , BLSPIT1 , TRLPIT1 ,
TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , BGHSE1 , TRU_WST1, TRU_WST2,
TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , . . . ,

** CONC OF PM-10 IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE
1.	0.20528c	(91120524)	AT (	420000.00, 3802000.00)	DC	26.	0.07058	(91113024)	AT (	420000.00, 3802000.00)	DC
2.	0.17122c	(91120924)	AT (	420000.00, 3802000.00)	DC	27.	0.06900	(91112324)	AT (	420000.00, 3802000.00)	DC
3.	0.16595	(91121024)	AT (	420000.00, 3802000.00)	DC	28.	0.06442c	(91122724)	AT (	420000.00, 3802000.00)	DC
4.	0.15763	(91011824)	AT (	420000.00, 3802000.00)	DC	29.	0.06396	(91032624)	AT (	394000.00, 3953000.00)	DC
5.	0.13283	(91010124)	AT (	420000.00, 3802000.00)	DC	30.	0.06289	(91121024)	AT (	394000.00, 3953000.00)	DC
6.	0.12821	(91022324)	AT (	420000.00, 3802000.00)	DC	31.	0.06065	(91040524)	AT (	420000.00, 3802000.00)	DC
7.	0.12711	(91123024)	AT (	420000.00, 3802000.00)	DC	32.	0.05898	(91011824)	AT (	394000.00, 3953000.00)	DC
8.	0.12527	(91022024)	AT (	420000.00, 3802000.00)	DC	33.	0.05888	(91123124)	AT (	420000.00, 3802000.00)	DC
9.	0.12420	(91122424)	AT (	420000.00, 3802000.00)	DC	34.	0.05623	(91071424)	AT (	394000.00, 3953000.00)	DC
10.	0.12151	(91110724)	AT (	420000.00, 3802000.00)	DC	35.	0.05613	(91042824)	AT (	420000.00, 3802000.00)	DC
11.	0.11441	(91010624)	AT (	394000.00, 3953000.00)	DC	36.	0.05390	(91012224)	AT (	420000.00, 3802000.00)	DC
12.	0.10896	(91112324)	AT (	394000.00, 3953000.00)	DC	37.	0.05387	(91030424)	AT (	394000.00, 3953000.00)	DC
13.	0.10778	(91010824)	AT (	420000.00, 3802000.00)	DC	38.	0.05255	(91102324)	AT (	420000.00, 3802000.00)	DC
14.	0.10774	(91030224)	AT (	394000.00, 3953000.00)	DC	39.	0.05059	(91022824)	AT (	394000.00, 3953000.00)	DC
15.	0.10629	(91012524)	AT (	420000.00, 3802000.00)	DC	40.	0.04947	(91111624)	AT (	420000.00, 3802000.00)	DC
16.	0.10418	(91100924)	AT (	420000.00, 3802000.00)	DC	41.	0.04880	(91111924)	AT (	394000.00, 3953000.00)	DC
17.	0.09970	(91121424)	AT (	420000.00, 3802000.00)	DC	42.	0.04831	(91011424)	AT (	394000.00, 3953000.00)	DC
18.	0.09414	(91102424)	AT (	420000.00, 3802000.00)	DC	43.	0.04796	(91102424)	AT (	394000.00, 3953000.00)	DC
19.	0.08623	(91090324)	AT (	394000.00, 3953000.00)	DC	44.	0.04710	(91100424)	AT (	394000.00, 3953000.00)	DC
20.	0.08548	(91110824)	AT (	394000.00, 3953000.00)	DC	45.	0.04466	(91030324)	AT (	394000.00, 3953000.00)	DC
21.	0.07988	(91012624)	AT (	420000.00, 3802000.00)	DC	46.	0.04446	(91060524)	AT (	394000.00, 3953000.00)	DC
22.	0.07974	(91091924)	AT (	420000.00, 3802000.00)	DC	47.	0.04395	(91081024)	AT (	394000.00, 3953000.00)	DC
23.	0.07780	(91111824)	AT (	420000.00, 3802000.00)	DC	48.	0.04126	(91011024)	AT (	420000.00, 3802000.00)	DC
24.	0.07577c	(91010924)	AT (	420000.00, 3802000.00)	DC	49.	0.04101	(91120824)	AT (	420000.00, 3802000.00)	DC
25.	0.07542	(91020124)	AT (	420000.00, 3802000.00)	DC	50.	0.03778	(91010524)	AT (	420000.00, 3802000.00)	DC

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*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
                     BD = BOUNDARY
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*** ISCST3 - VERSION 96113 ***     *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT          ***       11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average            ***       11:06:29
                                                                                                                 PAGE  32
**MODELOPTs: CONC                            RURAL  ELEV                                   MSGPRO

                      *** THE MAXIMUM   50  24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_2     ***
                          INCLUDING SOURCE(S):      DRLPIT1  , DRLPIT2  , DRLPIT3  , DRLPIT4  , DRLPIT5  , BLSPIT2  , TRLPIT1  ,
      TRLPIT2  , TRLPIT3  , TRLPIT4  , TRLPIT5  , HAUL_1   , HAUL_2   , HAUL_3   , HAUL_4   , HAUL_5   , BGHSE1   , TRU_WST1, TRU_WST2,
      TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1   , DZG_W2   , DZG_W3   , DZG_W4   , DZG_W5   , ERSN_W1  , ERSN_W2  , ERSN_W3  , . . . ,

                                   ** CONC OF PM-10      IN MICROGRAMS/M**3                                **
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RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE
1.	0.20257c	(91120524) AT (	420000.00, 3802000.00)	DC	26.	0.06989	(91113024) AT (	420000.00, 3802000.00)	DC
2.	0.16915c	(91120924) AT (	420000.00, 3802000.00)	DC	27.	0.06788	(91112324) AT (	420000.00, 3802000.00)	DC
3.	0.16277	(91121024) AT (	420000.00, 3802000.00)	DC	28.	0.06394c	(91122724) AT (	420000.00, 3802000.00)	DC
4.	0.15587	(91011824) AT (	420000.00, 3802000.00)	DC	29.	0.06277	(91032624) AT (	394000.00, 3953000.00)	DC
5.	0.13104	(91010124) AT (	420000.00, 3802000.00)	DC	30.	0.06234	(91121024) AT (	394000.00, 3953000.00)	DC
6.	0.12715	(91022324) AT (	420000.00, 3802000.00)	DC	31.	0.06013	(91040524) AT (	420000.00, 3802000.00)	DC
7.	0.12482	(91123024) AT (	420000.00, 3802000.00)	DC	32.	0.05850	(91011824) AT (	394000.00, 3953000.00)	DC
8.	0.12435	(91022024) AT (	420000.00, 3802000.00)	DC	33.	0.05784	(91123124) AT (	420000.00, 3802000.00)	DC
9.	0.12236	(91122424) AT (	420000.00, 3802000.00)	DC	34.	0.05560	(91071424) AT (	394000.00, 3953000.00)	DC
10.	0.12007	(91110724) AT (	420000.00, 3802000.00)	DC	35.	0.05555	(91042824) AT (	420000.00, 3802000.00)	DC
11.	0.11382	(91010624) AT (	394000.00, 3953000.00)	DC	36.	0.05328	(91030424) AT (	394000.00, 3953000.00)	DC
12.	0.10760	(91112324) AT (	394000.00, 3953000.00)	DC	37.	0.05268	(91012224) AT (	420000.00, 3802000.00)	DC
13.	0.10670	(91010824) AT (	420000.00, 3802000.00)	DC	38.	0.05216	(91102324) AT (	420000.00, 3802000.00)	DC
14.	0.10628	(91030224) AT (	394000.00, 3953000.00)	DC	39.	0.05072	(91022824) AT (	394000.00, 3953000.00)	DC
15.	0.10457	(91012524) AT (	420000.00, 3802000.00)	DC	40.	0.04862	(91111624) AT (	420000.00, 3802000.00)	DC
16.	0.10258	(91100924) AT (	420000.00, 3802000.00)	DC	41.	0.04818	(91011424) AT (	394000.00, 3953000.00)	DC
17.	0.09810	(91121424) AT (	420000.00, 3802000.00)	DC	42.	0.04797	(91111924) AT (	394000.00, 3953000.00)	DC
18.	0.09291	(91102424) AT (	420000.00, 3802000.00)	DC	43.	0.04678	(91102424) AT (	394000.00, 3953000.00)	DC
19.	0.08586	(91090324) AT (	394000.00, 3953000.00)	DC	44.	0.04650	(91100424) AT (	394000.00, 3953000.00)	DC
20.	0.08487	(91110824) AT (	394000.00, 3953000.00)	DC	45.	0.04403	(91060524) AT (	394000.00, 3953000.00)	DC
21.	0.07900	(91012624) AT (	420000.00, 3802000.00)	DC	46.	0.04351	(91030324) AT (	394000.00, 3953000.00)	DC
22.	0.07885	(91091924) AT (	420000.00, 3802000.00)	DC	47.	0.04341	(91081024) AT (	394000.00, 3953000.00)	DC
23.	0.07669	(91111824) AT (	420000.00, 3802000.00)	DC	48.	0.04099	(91011024) AT (	420000.00, 3802000.00)	DC
24.	0.07465	(91020124) AT (	420000.00, 3802000.00)	DC	49.	0.03988	(91120824) AT (	420000.00, 3802000.00)	DC
25.	0.07422c	(91010924) AT (	420000.00, 3802000.00)	DC	50.	0.03759	(91010524) AT (	420000.00, 3802000.00)	DC

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*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
                     BD = BOUNDARY
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*** ISCST3 - VERSION 96113 ***     *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT          ***       11/12/96
                                   *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average            ***       11:06:29
                                                                                                                 PAGE  33
**MODELOPTs: CONC                            RURAL  ELEV                                   MSGPRO

                      *** THE MAXIMUM   50  24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_3     ***
                          INCLUDING SOURCE(S):      DRLPIT1  , DRLPIT2  , DRLPIT3  , DRLPIT4  , DRLPIT5  , DRLPIT6  , BLSPIT3  ,
      TRLPIT1  , TRLPIT2  , TRLPIT3  , TRLPIT4  , TRLPIT5  , TRLPIT6  , HAUL_1   , HAUL_2   , HAUL_3   , HAUL_4   , HAUL_5   , HAUL_6   ,
      BGHSE1   , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1   , DZG_W2   , DZG_W3   , DZG_W4   , DZG_W5   , . . . ,

                                   ** CONC OF PM-10      IN MICROGRAMS/M**3                                **
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RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE
1.	0.21109c	(91120524) AT (	420000.00, 3802000.00)	DC	26.	0.07217	(91113024) AT (	420000.00, 3802000.00)	DC
2.	0.17557c	(91120924) AT (	420000.00, 3802000.00)	DC	27.	0.07045	(91112324) AT (	420000.00, 3802000.00)	DC
3.	0.17035	(91121024) AT (	420000.00, 3802000.00)	DC	28.	0.06484	(91032624) AT (	394000.00, 3953000.00)	DC
4.	0.16213	(91011824) AT (	420000.00, 3802000.00)	DC	29.	0.06281c	(91122724) AT (	420000.00, 3802000.00)	DC
5.	0.13666	(91010124) AT (	420000.00, 3802000.00)	DC	30.	0.06218	(91040524) AT (	420000.00, 3802000.00)	DC
6.	0.13173	(91022324) AT (	420000.00, 3802000.00)	DC	31.	0.06170	(91121024) AT (	394000.00, 3953000.00)	DC
7.	0.13057	(91123024) AT (	420000.00, 3802000.00)	DC	32.	0.06105	(91011824) AT (	394000.00, 3953000.00)	DC
8.	0.12859	(91022024) AT (	420000.00, 3802000.00)	DC	33.	0.06023	(91123124) AT (	420000.00, 3802000.00)	DC
9.	0.12746	(91122424) AT (	420000.00, 3802000.00)	DC	34.	0.05790	(91071424) AT (	394000.00, 3953000.00)	DC
10.	0.12514	(91110724) AT (	420000.00, 3802000.00)	DC	35.	0.05776	(91042824) AT (	420000.00, 3802000.00)	DC
11.	0.11835	(91010624) AT (	394000.00, 3953000.00)	DC	36.	0.05512	(91012224) AT (	420000.00, 3802000.00)	DC
12.	0.11202	(91112324) AT (	394000.00, 3953000.00)	DC	37.	0.05396	(91102324) AT (	420000.00, 3802000.00)	DC
13.	0.11091	(91010824) AT (	420000.00, 3802000.00)	DC	38.	0.05373	(91022824) AT (	394000.00, 3953000.00)	DC

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 14.    0.11052 (91030224) AT (  394000.00, 3953000.00)  DC     39.    0.05365 (91030424) AT (  394000.00, 3953000.00)  DC
 15.    0.10937 (91012524) AT (  420000.00, 3802000.00)  DC     40.    0.05085 (91111624) AT (  420000.00, 3802000.00)  DC
 16.    0.10714 (91100924) AT (  420000.00, 3802000.00)  DC     41.    0.04985 (91011424) AT (  394000.00, 3953000.00)  DC
 17.    0.10326 (91121424) AT (  420000.00, 3802000.00)  DC     42.    0.04982 (91111924) AT (  394000.00, 3953000.00)  DC
 18.    0.09680 (91102424) AT (  420000.00, 3802000.00)  DC     43.    0.04833 (91100424) AT (  394000.00, 3953000.00)  DC
 19.    0.08959 (91090324) AT (  394000.00, 3953000.00)  DC     44.    0.04818 (91102424) AT (  394000.00, 3953000.00)  DC
 20.    0.08776 (91110824) AT (  394000.00, 3953000.00)  DC     45.    0.04589 (91060524) AT (  394000.00, 3953000.00)  DC
 21.    0.08210 (91091924) AT (  420000.00, 3802000.00)  DC     46.    0.04505 (91081024) AT (  394000.00, 3953000.00)  DC
 22.    0.08201 (91012624) AT (  420000.00, 3802000.00)  DC     47.    0.04457 (91030324) AT (  394000.00, 3953000.00)  DC
 23.    0.08010 (91111824) AT (  420000.00, 3802000.00)  DC     48.    0.04229 (91011024) AT (  420000.00, 3802000.00)  DC
 24.    0.07768c(91010924) AT (  420000.00, 3802000.00)  DC     49.    0.04161 (91120824) AT (  420000.00, 3802000.00)  DC
 25.    0.07761 (91020124) AT (  420000.00, 3802000.00)  DC     50.    0.03885 (91073124) AT (  394000.00, 3953000.00)  DC

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
                      BD = BOUNDARY

 *** ISCST3 - VERSION 96113 ***   *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT        ***      11/12/96
                                  *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average          ***      11:06:29
                                                                                                             PAGE  34
 **MODELOPTs: CONC                         RURAL  ELEV                                MSGPRO

                        *** THE MAXIMUM   50  24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_4     ***
                            INCLUDING SOURCE(S):      DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT4 ,
      TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  ,
      BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , . . . ,

                                  ** CONC OF PM-10    IN MICROGRAMS/M**3                                **

 RANK        CONC    (YYMMDDHH) AT      RECEPTOR (XR,YR) OF TYPE   RANK       CONC    (YYMMDDHH) AT      RECEPTOR (XR,YR) OF TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
  1.    0.21122c(91120524) AT (  420000.00, 3802000.00)  DC     26.    0.07220 (91113024) AT (  420000.00, 3802000.00)  DC
  2.    0.17567c(91120924) AT (  420000.00, 3802000.00)  DC     27.    0.07050 (91112324) AT (  420000.00, 3802000.00)  DC
  3.    0.17048 (91121024) AT (  420000.00, 3802000.00)  DC     28.    0.06489 (91032624) AT (  394000.00, 3953000.00)  DC
  4.    0.16222 (91011824) AT (  420000.00, 3802000.00)  DC     29.    0.06318c(91122724) AT (  420000.00, 3802000.00)  DC
  5.    0.13674 (91010124) AT (  420000.00, 3802000.00)  DC     30.    0.06235 (91121024) AT (  394000.00, 3953000.00)  DC
  6.    0.13180 (91022324) AT (  420000.00, 3802000.00)  DC     31.    0.06224 (91040524) AT (  420000.00, 3802000.00)  DC
  7.    0.13067 (91123024) AT (  420000.00, 3802000.00)  DC     32.    0.06108 (91011824) AT (  394000.00, 3953000.00)  DC
  8.    0.12865 (91022024) AT (  420000.00, 3802000.00)  DC     33.    0.06028 (91123124) AT (  420000.00, 3802000.00)  DC
  9.    0.12754 (91122424) AT (  420000.00, 3802000.00)  DC     34.    0.05794 (91071424) AT (  394000.00, 3953000.00)  DC
 10.    0.12521 (91110724) AT (  420000.00, 3802000.00)  DC     35.    0.05780 (91042824) AT (  420000.00, 3802000.00)  DC
 11.    0.11885 (91010624) AT (  394000.00, 3953000.00)  DC     36.    0.05517 (91012224) AT (  420000.00, 3802000.00)  DC
 12.    0.11211 (91112324) AT (  394000.00, 3953000.00)  DC     37.    0.05398 (91102324) AT (  420000.00, 3802000.00)  DC
 13.    0.11097 (91010824) AT (  420000.00, 3802000.00)  DC     38.    0.05388 (91030424) AT (  394000.00, 3953000.00)  DC
 14.    0.11064 (91030224) AT (  394000.00, 3953000.00)  DC     39.    0.05334 (91022824) AT (  394000.00, 3953000.00)  DC
 15.    0.10945 (91012524) AT (  420000.00, 3802000.00)  DC     40.    0.05088 (91111624) AT (  420000.00, 3802000.00)  DC
 16.    0.10722 (91100924) AT (  420000.00, 3802000.00)  DC     41.    0.05001 (91011424) AT (  394000.00, 3953000.00)  DC
 17.    0.10283 (91121424) AT (  420000.00, 3802000.00)  DC     42.    0.04960 (91111924) AT (  394000.00, 3953000.00)  DC
 18.    0.09686 (91102424) AT (  420000.00, 3802000.00)  DC     43.    0.04836 (91100424) AT (  394000.00, 3953000.00)  DC
 19.    0.08965 (91090324) AT (  394000.00, 3953000.00)  DC     44.    0.04823 (91102424) AT (  394000.00, 3953000.00)  DC
 20.    0.08798 (91110824) AT (  394000.00, 3953000.00)  DC     45.    0.04592 (91060524) AT (  394000.00, 3953000.00)  DC
 21.    0.08214 (91091924) AT (  420000.00, 3802000.00)  DC     46.    0.04508 (91081024) AT (  394000.00, 3953000.00)  DC
 22.    0.08202 (91012624) AT (  420000.00, 3802000.00)  DC     47.    0.04461 (91030324) AT (  394000.00, 3953000.00)  DC
 23.    0.08015 (91111824) AT (  420000.00, 3802000.00)  DC     48.    0.04231 (91011024) AT (  420000.00, 3802000.00)  DC
 24.    0.07774c(91010924) AT (  420000.00, 3802000.00)  DC     49.    0.04165 (91120824) AT (  420000.00, 3802000.00)  DC
 25.    0.07762 (91020124) AT (  420000.00, 3802000.00)  DC     50.    0.03889 (91073124) AT (  394000.00, 3953000.00)  DC

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
                      BD = BOUNDARY

 *** ISCST3 - VERSION 96113 ***   *** GOLDEN QUEEN MINING COMPANY - SOLEDAD MOUNTAIN PROJECT        ***      11/12/96
                                  *** Class 1 Analysis - 1991 Met - 6 MMTPY Hourly Average          ***      11:06:29
                                                                                                             PAGE  35
 **MODELOPTs: CONC                         RURAL  ELEV                                MSGPRO

                        *** THE MAXIMUM   50  24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  PIT_5     ***
                            INCLUDING SOURCE(S):      DRLPIT1 , DRLPIT2 , DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT5 ,
      TRLPIT1 , TRLPIT2 , TRLPIT3 , TRLPIT4 , TRLPIT5 , TRLPIT6 , HAUL_1  , HAUL_2  , HAUL_3  , HAUL_4  , HAUL_5  , HAUL_6  ,
      BGHSE1  , TRU_WST1, TRU_WST2, TRU_WST3, TRU_WST4, TRU_WST5, DZG_W1  , DZG_W2  , DZG_W3  , DZG_W4  , DZG_W5  , . . . ,

                                  ** CONC OF PM-10    IN MICROGRAMS/M**3                                **

 RANK        CONC    (YYMMDDHH) AT      RECEPTOR (XR,YR) OF TYPE   RANK       CONC    (YYMMDDHH) AT      RECEPTOR (XR,YR) OF TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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1.	0.21122c(91120524) AT (	420000.00, 3802000.00)	DC	26.	0.07221 (91113024) AT (	420000.00, 3802000.00)	DC
2.	0.17567c(91120924) AT (	420000.00, 3802000.00)	DC	27.	0.07049 (91112324) AT (	420000.00, 3802000.00)	DC
3.	0.17046 (91121024) AT (	420000.00, 3802000.00)	DC	28.	0.06489 (91032624) AT (	394000.00, 3953000.00)	DC
4.	0.16223 (91011824) AT (	420000.00, 3802000.00)	DC	29.	0.06335c(91122724) AT (	420000.00, 3802000.00)	DC
5.	0.13674 (91010124) AT (	420000.00, 3802000.00)	DC	30.	0.06223 (91040524) AT (	420000.00, 3802000.00)	DC
6.	0.13181 (91022324) AT (	420000.00, 3802000.00)	DC	31.	0.06219 (91121024) AT (	394000.00, 3953000.00)	DC
7.	0.13066 (91123024) AT (	420000.00, 3802000.00)	DC	32.	0.06108 (91011824) AT (	394000.00, 3953000.00)	DC
8.	0.12866 (91022024) AT (	420000.00, 3802000.00)	DC	33.	0.06027 (91123124) AT (	420000.00, 3802000.00)	DC
9.	0.12753 (91122424) AT (	420000.00, 3802000.00)	DC	34.	0.05794 (91071424) AT (	394000.00, 3953000.00)	DC
10.	0.12522 (91110724) AT (	420000.00, 3802000.00)	DC	35.	0.05780 (91042824) AT (	420000.00, 3802000.00)	DC
11.	0.11850 (91010624) AT (	394000.00, 3953000.00)	DC	36.	0.05516 (91012224) AT (	420000.00, 3802000.00)	DC
12.	0.11211 (91112324) AT (	394000.00, 3953000.00)	DC	37.	0.05399 (91030424) AT (	394000.00, 3953000.00)	DC
13.	0.11098 (91010824) AT (	420000.00, 3802000.00)	DC	38.	0.05399 (91102324) AT (	420000.00, 3802000.00)	DC
14.	0.11061 (91030224) AT (	394000.00, 3953000.00)	DC	39.	0.05354 (91022824) AT (	394000.00, 3953000.00)	DC
15.	0.10944 (91012524) AT (	420000.00, 3802000.00)	DC	40.	0.05088 (91111624) AT (	420000.00, 3802000.00)	DC
16.	0.10721 (91100924) AT (	420000.00, 3802000.00)	DC	41.	0.04994 (91011424) AT (	394000.00, 3953000.00)	DC
17.	0.10297 (91121424) AT (	420000.00, 3802000.00)	DC	42.	0.04974 (91111924) AT (	394000.00, 3953000.00)	DC
18.	0.09686 (91102424) AT (	420000.00, 3802000.00)	DC	43.	0.04836 (91100424) AT (	394000.00, 3953000.00)	DC
19.	0.08966 (91090324) AT (	394000.00, 3953000.00)	DC	44.	0.04822 (91102424) AT (	394000.00, 3953000.00)	DC
20.	0.08800 (91110824) AT (	394000.00, 3953000.00)	DC	45.	0.04592 (91060524) AT (	394000.00, 3953000.00)	DC
21.	0.08215 (91091924) AT (	420000.00, 3802000.00)	DC	46.	0.04508 (91081024) AT (	394000.00, 3953000.00)	DC
22.	0.08204 (91012624) AT (	420000.00, 3802000.00)	DC	47.	0.04460 (91030324) AT (	394000.00, 3953000.00)	DC
23.	0.08015 (91111824) AT (	420000.00, 3802000.00)	DC	48.	0.04232 (91011024) AT (	420000.00, 3802000.00)	DC
24.	0.07773c(91010924) AT (	420000.00, 3802000.00)	DC	49.	0.04164 (91120824) AT (	420000.00, 3802000.00)	DC
25.	0.07764 (91020124) AT (	420000.00, 3802000.00)	DC	50.	0.03889 (91073124) AT (	394000.00, 3953000.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

**MODELOPTs: CONC RURAL ELEV MSGPRO

*** THE MAXIMUM 50 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PIT_6 ***
INCLUDING SOURCE(S): DRLPIT3 , DRLPIT4 , DRLPIT5 , DRLPIT6 , BLSPIT6 , TRLPIT3 , TRLPIT4 ,
TRLPIT5 , TRLPIT6 , HAUL_1 , HAUL_2 , HAUL_3 , HAUL_4 , HAUL_5 , HAUL_6 , BGHSE1 , TRU_WST1, TRU_WST2, TRU_WST3,
TRU_WST4, TRU_WST5, DZG_W1 , DZG_W2 , DZG_W3 , DZG_W4 , DZG_W5 , ERSN_W1 , ERSN_W2 , ERSN_W3 , ERSN_W4 , ERSN_W5 ,

** CONC OF PM-10 IN MICROGRAMS/M**3 **

RANK	CONC (YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC (YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE
1.	0.19815c(91120524) AT (	420000.00, 3802000.00)	DC	26.	0.06875 (91113024) AT (	420000.00, 3802000.00)	DC
2.	0.16578c(91120924) AT (	420000.00, 3802000.00)	DC	27.	0.06610 (91112324) AT (	420000.00, 3802000.00)	DC
3.	0.15765 (91121024) AT (	420000.00, 3802000.00)	DC	28.	0.06029 (91032624) AT (	394000.00, 3953000.00)	DC
4.	0.15292 (91011824) AT (	420000.00, 3802000.00)	DC	29.	0.06017c(91122724) AT (	420000.00, 3802000.00)	DC
5.	0.12814 (91010124) AT (	420000.00, 3802000.00)	DC	30.	0.05927 (91121024) AT (	394000.00, 3953000.00)	DC
6.	0.12537 (91022324) AT (	420000.00, 3802000.00)	DC	31.	0.05920 (91040524) AT (	420000.00, 3802000.00)	DC
7.	0.12282 (91022024) AT (	420000.00, 3802000.00)	DC	32.	0.05774 (91011824) AT (	394000.00, 3953000.00)	DC
8.	0.12115 (91123024) AT (	420000.00, 3802000.00)	DC	33.	0.05618 (91123124) AT (	420000.00, 3802000.00)	DC
9.	0.11938 (91122424) AT (	420000.00, 3802000.00)	DC	34.	0.05460 (91042824) AT (	420000.00, 3802000.00)	DC
10.	0.11771 (91110724) AT (	420000.00, 3802000.00)	DC	35.	0.05447 (91071424) AT (	394000.00, 3953000.00)	DC
11.	0.11307 (91010624) AT (	394000.00, 3953000.00)	DC	36.	0.05150 (91102324) AT (	420000.00, 3802000.00)	DC
12.	0.10494 (91010824) AT (	420000.00, 3802000.00)	DC	37.	0.05129 (91022824) AT (	394000.00, 3953000.00)	DC
13.	0.10491 (91112324) AT (	394000.00, 3953000.00)	DC	38.	0.05090 (91030424) AT (	394000.00, 3953000.00)	DC
14.	0.10331 (91030224) AT (	394000.00, 3953000.00)	DC	39.	0.05074 (91012224) AT (	420000.00, 3802000.00)	DC
15.	0.10179 (91012524) AT (	420000.00, 3802000.00)	DC	40.	0.04842 (91011424) AT (	394000.00, 3953000.00)	DC
16.	0.09997 (91100924) AT (	420000.00, 3802000.00)	DC	41.	0.04725 (91111624) AT (	420000.00, 3802000.00)	DC
17.	0.09554 (91121424) AT (	420000.00, 3802000.00)	DC	42.	0.04638 (91111924) AT (	394000.00, 3953000.00)	DC
18.	0.09092 (91102424) AT (	420000.00, 3802000.00)	DC	43.	0.04541 (91100424) AT (	394000.00, 3953000.00)	DC
19.	0.08578 (91090324) AT (	394000.00, 3953000.00)	DC	44.	0.04412 (91102424) AT (	394000.00, 3953000.00)	DC
20.	0.08340 (91110824) AT (	394000.00, 3953000.00)	DC	45.	0.04328 (91060524) AT (	394000.00, 3953000.00)	DC
21.	0.07744 (91012624) AT (	420000.00, 3802000.00)	DC	46.	0.04258 (91081024) AT (	394000.00, 3953000.00)	DC
22.	0.07740 (91091924) AT (	420000.00, 3802000.00)	DC	47.	0.04133 (91030324) AT (	394000.00, 3953000.00)	DC
23.	0.07488 (91111824) AT (	420000.00, 3802000.00)	DC	48.	0.04053 (91011024) AT (	420000.00, 3802000.00)	DC
24.	0.07333 (91020124) AT (	420000.00, 3802000.00)	DC	49.	0.03812 (91120824) AT (	420000.00, 3802000.00)	DC
25.	0.07173c(91010924) AT (	420000.00, 3802000.00)	DC	50.	0.03726 (91010524) AT (	420000.00, 3802000.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)				OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	0.01232 AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
	2ND HIGHEST VALUE IS	0.00814 AT (	394000.00,	3953000.00,	853.44,	0.00)	DC	NA
	3RD HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	4TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	5TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	6TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
PIT_1	1ST HIGHEST VALUE IS	0.01031 AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
	2ND HIGHEST VALUE IS	0.00533 AT (	394000.00,	3953000.00,	853.44,	0.00)	DC	NA
	3RD HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	4TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	5TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	6TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
PIT_2	1ST HIGHEST VALUE IS	0.01018 AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
	2ND HIGHEST VALUE IS	0.00528 AT (	394000.00,	3953000.00,	853.44,	0.00)	DC	NA
	3RD HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	4TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	5TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	6TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
PIT_3	1ST HIGHEST VALUE IS	0.01052 AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
	2ND HIGHEST VALUE IS	0.00541 AT (	394000.00,	3953000.00,	853.44,	0.00)	DC	NA
	3RD HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	4TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	5TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	6TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
PIT_4	1ST HIGHEST VALUE IS	0.01055 AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
	2ND HIGHEST VALUE IS	0.00542 AT (	394000.00,	3953000.00,	853.44,	0.00)	DC	NA
	3RD HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	4TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	5TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	6TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
PIT_5	1ST HIGHEST VALUE IS	0.01055 AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
	2ND HIGHEST VALUE IS	0.00543 AT (	394000.00,	3953000.00,	853.44,	0.00)	DC	NA
	3RD HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	4TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	5TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	6TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
PIT_6	1ST HIGHEST VALUE IS	0.00993 AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
	2ND HIGHEST VALUE IS	0.00513 AT (	394000.00,	3953000.00,	853.44,	0.00)	DC	NA
	3RD HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	4TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	5TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		
	6TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00)		

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM-10 IN MICROGRAMS/M**3 **

GROUP ID			AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)				OF TYPE	NETWORK GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	0.22910c	ON 91120524: AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
PIT_1	HIGH	1ST HIGH VALUE IS	0.20528c	ON 91120524: AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
PIT_2	HIGH	1ST HIGH VALUE IS	0.20257c	ON 91120524: AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
PIT_3	HIGH	1ST HIGH VALUE IS	0.21109c	ON 91120524: AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
PIT_4	HIGH	1ST HIGH VALUE IS	0.21122c	ON 91120524: AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
PIT_5	HIGH	1ST HIGH VALUE IS	0.21122c	ON 91120524: AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA
PIT_6	HIGH	1ST HIGH VALUE IS	0.19815c	ON 91120524: AT (	420000.00,	3802000.00,	853.44,	0.00)	DC	NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

**MODELOPTs: CONC RURAL ELEV MSGPRO

*** Message Summary : ISCST3 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 5 Warning Message(s)
A Total of 14 Informational Message(s)

A Total of 14 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********

```
SO W391    59 APARM :Aspect ratio (L/W) of area source greater than 10  HAUL_3
SO W391    61 APARM :Aspect ratio (L/W) of area source greater than 10  HAUL_4
MX W420   124 METQA :Wind Speed Out-of-Range.    KURDAT=             91010604
MX W420   125 METQA :Wind Speed Out-of-Range.    KURDAT=             91010605
MX W420   126 METQA :Wind Speed Out-of-Range.    KURDAT=             91010606
```

****
*** ISCST3 Finishes Successfully ***
****

APPENDIX H

Visual Effects Screening Analysis for
Source: Golden Queen Mining
Class I Area: Dome Land Wilderness

*** User-selected Screening Scenario Results ***

Input Emissions for

Particulates	21.80	G /S
NOx (as NO2)	.00	G /S
Primary NO2	.00	G /S
Soot	.00	G /S
Primary SO4	.00	G /S

PARTICLE CHARACTERISTICS

	Density	Diameter
Primary Part.	2.5	6
Soot	2.0	1
Sulfate	1.5	4

Transport Scenario Specifications:

Background Ozone:	.04 ppm
Background Visual Range:	50.00 km
Source-Observer Distance:	80.00 km
Min. Source-Class I Distance:	80.00 km
Max. Source-Class I Distance:	100.00 km
Plume-Source-Observer Angle:	11.25 degrees

Stability: 6
Wind Speed: 1.00 m/s

R E S U L T S

Asterisks (*) indicate plume impacts that exceed screening criteria

Maximum Visual Impacts INSIDE Class I Area
Screening Criteria ARE NOT Exceeded

					Delta E		Contrast	
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume
SKY	10.	84.	80.0	84.	2.00	1.035	.05	.015
SKY	140.	84.	80.0	84.	2.00	.165	.05	-.008
TERRAIN	10.	84.	80.0	84.	2.00	.554	.05	.006
TERRAIN	140.	84.	80.0	84.	2.00	.115	.05	.004

Maximum Visual Impacts OUTSIDE Class I Area
Screening Criteria ARE NOT Exceeded

					Delta E		Contrast	
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume
SKY	10.	30.	60.7	139.	2.00	1.271	.05	.017
SKY	140.	30.	60.7	139.	2.00	.198	.05	-.009
TERRAIN	10.	50.	69.9	119.	2.00	.702	.05	.007
TERRAIN	140.	50.	69.9	119.	2.00	.155	.05	.005

```
"Golden Queen Mining          "
"Dome Land Wilderness         "
      1     1
     21.800       .000       .000       .000       .000
     80.000     80.000    100.000     50.000
      0      1.500    3
      0      2.500    8
      0      2.500    6
      0      2.000    1
      0      1.500    4
      0       .040      1.000     6
      0     11.250
 34
  1 0     5.0 163.8  24.9  55.8  66.3  .29  .050  2.00   .52  2.00  .08  2.00  .28  2.00  .08
  2 0    10.0 158.8  38.3  43.1  57.0  .42  .050  2.00   .91  2.00  .14  2.00  .40  2.00  .12
  3 0    15.0 153.8  46.8  35.3  50.3  .55  .050  2.00  1.15  2.00  .18  2.00  .49  2.00  .14
  4 0    20.0 148.8  52.7  30.1  45.3  .66  .050  2.00  1.23  2.00  .19  2.00  .55  2.00  .15
  5 0    25.0 143.8  57.2  26.4  41.5  .77  .050  2.00  1.26  2.00  .20  2.00  .59  2.00  .16
  6 0    30.0 138.8  60.7  23.7  38.6  .87  .050  2.00  1.27  2.00  .20  2.00  .63  2.00  .16
  7 0    35.0 133.8  63.5  21.6  36.3  .96  .050  2.00  1.26  2.00  .20  2.00  .66  2.00  .16
  8 0    40.0 128.8  65.9  20.0  34.5 1.04  .050  2.00  1.24  2.00  .19  2.00  .68  2.00  .16
  9 0    45.0 123.8  68.0  18.8  33.1 1.12  .050  2.00  1.22  2.00  .19  2.00  .70  2.00  .16
 10 0    50.0 118.8  69.9  17.8  32.1 1.19  .050  2.00  1.20  2.00  .19  2.00  .70  2.00  .16
 11 0    55.0 113.8  71.6  17.1  31.4 1.25  .050  2.00  1.17  2.00  .19  2.00  .70  2.00  .15
 12 0    60.0 108.8  73.2  16.5  30.9 1.30  .050  2.00  1.14  2.00  .18  2.00  .69  2.00  .15
 13 0    65.0 103.8  74.6  16.1  30.6 1.34  .050  2.00  1.12  2.00  .18  2.00  .67  2.00  .14
 14 0    70.0  98.8  76.1  15.8  30.6 1.37  .050  2.00  1.10  2.00  .17  2.00  .65  2.00  .14
 15 0    75.0  93.8  77.4  15.6  30.9 1.38  .050  2.00  1.07  2.00  .17  2.00  .62  2.00  .13
 16 0    80.0  88.8  78.8  15.6  31.4 1.39  .050  2.00  1.05  2.00  .17  2.00  .59  2.00  .12
 17 1    85.0  83.8  80.2  15.7  32.1 1.39  .050  2.00  1.03  2.00  .16  2.00  .55  2.00  .11
 18 1    90.0  78.8  81.6  15.9  33.1 1.37  .050  2.00  1.01  2.00  .16  2.00  .50  2.00  .11
 19 1    95.0  73.8  83.0  16.3  34.5 1.35  .050  2.00   .99  2.00  .16  2.00  .45  2.00  .10
 20 1   100.0  68.8  84.5  16.7  36.3 1.32  .050  2.00   .97  2.00  .15  2.00  .40  2.00  .09
 21 1   105.0  63.8  86.2  17.4  38.6 1.27  .050  2.00   .94  2.00  .15  2.00  .34  2.00  .07
 22 1   110.0  58.8  87.9  18.3  41.5 1.22  .050  2.00   .91  2.00  .14  2.00  .28  2.00  .06
 23 1   115.0  53.8  89.9  19.4  45.3 1.15  .050  2.00   .88  2.00  .14  2.00  .22  2.00  .05
 24 1   120.0  48.8  92.1  20.8  50.3 1.08  .050  2.00   .83  2.00  .13  2.00  .16  2.00  .04
 25 1   125.0  43.8  94.8  22.6  57.0 1.00  .050  2.00   .78  2.00  .12  2.00  .10  2.00  .02
 26 1   130.0  38.8  97.9  24.9  66.3  .91  .050  2.00   .71  2.00  .11  2.00  .05  2.00  .01
 27 0   135.0  33.8 101.8  28.1  80.0  .81  .050  2.00   .62  2.00  .10  2.00  .02  2.00  .01
 28 0   140.0  28.8 106.9  32.4 101.8  .71  .050  2.00   .51  2.00  .08  2.00  .01  2.00  .00
 29 0   145.0  23.8 113.9  38.8 141.4  .60  .050  2.00   .37  2.00  .06  2.00  .00  2.00  .00
 30 0   150.0  18.8 124.4  48.6 234.5  .49  .050  2.00   .21  2.00  .03  2.00  .00  2.00  .00
 31 0   155.0  13.8 142.2  65.7 701.9  .37  .050  2.00   .07  2.00  .01  2.00  .00  2.00  .00
 32 0      .1 168.6   1.0  79.0  79.5  .04  .109  6.51   .25  2.23  .04  6.50  .27  2.23  .08
 33 1    84.4  84.4  80.0  15.7  32.0 1.39  .050  2.00  1.03  2.00  .17  2.00  .55  2.00  .12
 34 1   132.8  35.9 100.0  26.6  73.3  .86  .050  2.00   .66  2.00  .10  2.00  .03  2.00  .01
 34
  1 0   5.000  .050  .005  .002  -.002  .002  .001  .000  -.001  .000  .010  .007  -.005  .006
  2 0  10.000  .050  .010  .003  -.005  .003  .003  .001  -.002  .001  .016  .009  -.007  .008
  3 0  15.000  .050  .013  .004  -.007  .004  .005  .001  -.003  .001  .019  .010  -.009  .009
  4 0  20.000  .050  .015  .005  -.008  .005  .007  .001  -.004  .001  .020  .011  -.009  .009
  5 0  25.000  .050  .016  .006  -.008  .005  .008  .001  -.005  .001  .020  .011  -.010  .009
  6 0  30.000  .050  .017  .006  -.009  .005  .009  .002  -.005  .002  .020  .012  -.009  .009
  7 0  35.000  .050  .017  .007  -.009  .005  .010  .002  -.006  .002  .020  .012  -.009  .009
  8 0  40.000  .050  .018  .007  -.009  .005  .011  .002  -.006  .002  .020  .012  -.009  .009
  9 0  45.000  .050  .017  .007  -.009  .005  .011  .002  -.006  .002  .019  .012  -.009  .009
 10 0  50.000  .050  .017  .007  -.009  .005  .011  .002  -.006  .002  .019  .012  -.009  .009
 11 0  55.000  .050  .017  .007  -.009  .005  .012  .002  -.007  .002  .018  .012  -.009  .008
 12 0  60.000  .050  .017  .007  -.009  .005  .012  .002  -.007  .002  .018  .012  -.008  .008
 13 0  65.000  .050  .017  .007  -.008  .005  .012  .002  -.007  .002  .018  .011  -.008  .008
 14 0  70.000  .050  .016  .007  -.008  .005  .012  .002  -.006  .002  .017  .011  -.008  .007
 15 0  75.000  .050  .016  .006  -.008  .004  .011  .002  -.006  .002  .017  .011  -.008  .007
 16 0  80.000  .050  .016  .006  -.008  .004  .011  .002  -.006  .002  .016  .010  -.008  .007
 17 1  85.000  .050  .015  .006  -.008  .004  .011  .002  -.006  .001  .016  .009  -.008  .006
 18 1  90.000  .050  .015  .005  -.008  .003  .011  .002  -.006  .001  .016  .009  -.007  .006
 19 1  95.000  .050  .015  .005  -.007  .003  .010  .001  -.006  .001  .016  .008  -.007  .005
 20 1 100.000  .050  .014  .004  -.007  .003  .010  .001  -.005  .001  .015  .007  -.007  .005
 21 1 105.000  .050  .014  .003  -.007  .002  .009  .001  -.005  .001  .015  .006  -.007  .004
 22 1 110.000  .050  .013  .003  -.007  .002  .009  .001  -.005  .001  .014  .005  -.007  .004
 23 1 115.000  .050  .012  .002  -.006  .001  .008  .000  -.004  .000  .014  .004  -.006  .003
 24 1 120.000  .050  .012  .001  -.006  .001  .007  .000  -.004  .000  .013  .003  -.006  .002
 25 1 125.000  .050  .011  .001  -.005  .001  .006  .000  -.003  .000  .012  .002  -.006  .002
 26 1 130.000  .050  .009  .000  -.005  .000  .005  .000  -.003  .000  .011  .001  -.005  .001
 27 0 135.000  .050  .008  .000  -.004  .000  .004  .000  -.002  .000  .010  .001  -.005  .000
 28 0 140.000  .050  .006  .000  -.003  .000  .003  .000  -.001  .000  .008  .000  -.004  .000
 29 0 145.000  .050  .004  .000  -.002  .000  .001  .000  -.001  .000  .006  .000  -.003  .000
 30 0 150.000  .050  .002  .000  -.001  .000  .001  .000  -.000  .000  .004  .000  -.002  .000
 31 0 155.000  .050  .001  .000  -.000  .000  .000  .000   .000  .000  .002  .000  -.001  .000
 32 0    .141  .109  .002  .002  -.001  .002  .000  .000  -.000  .000  .006  .007  -.003  .007
 33 1  84.375  .050  .015  .006  -.008  .004  .011  .002  -.006  .001  .016  .010  -.008  .006
 34 1 132.820  .050  .008  .000  -.004  .000  .004  .000  -.002  .000  .011  .001  -.005  .001
```

Visual Effects Screening Analysis for
Source: Golden Queen Mining
Class I Area: San Gabriel Mountains

*** Level-1 Screening ***

Input Emissions for

Particulates	21.80	G /S
NOx (as NO2)	.00	G /S
Primary NO2	.00	G /S
Soot	.00	G /S
Primary SO4	.00	G /S

**** Default Particle Characteristics Assumed

Transport Scenario Specifications:

Background Ozone:	.04 ppm
Background Visual Range:	50.00 km
Source-Observer Distance:	76.00 km
Min. Source-Class I Distance:	76.00 km
Max. Source-Class I Distance:	100.00 km
Plume-Source-Observer Angle:	11.25 degrees
Stability:	6
Wind Speed:	1.00 m/s

R E S U L T S

Asterisks (*) indicate plume impacts that exceed screening criteria

Maximum Visual Impacts INSIDE Class I Area
Screening Criteria ARE NOT Exceeded

					Delta E		Contrast	
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume
SKY	10.	84.	76.0	84.	2.00	1.155	.05	.017
SKY	140.	84.	76.0	84.	2.00	.185	.05	-.009
TERRAIN	10.	84.	76.0	84.	2.00	.668	.05	.007
TERRAIN	140.	84.	76.0	84.	2.00	.136	.05	.005

Maximum Visual Impacts OUTSIDE Class I Area
Screening Criteria ARE NOT Exceeded

					Delta E		Contrast	
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume
SKY	10.	25.	54.3	144.	2.00	1.459	.05	.019
SKY	140.	25.	54.3	144.	2.00	.227	.05	-.010
TERRAIN	10.	50.	66.4	119.	2.00	.847	.05	.009
TERRAIN	140.	50.	66.4	119.	2.00	.183	.05	.006

```
"Golden Queen Mining       "
"San Gabriel Mountains     "
     1    1
     21.800      .000      .000      .000      .000
     76.000    76.000   100.000    50.000
     1     1.500    3
     1     2.500    8
     1     2.500    6
     1     2.000    1
     1     1.500    4
     1      .040      1.000      6
     1    11.250
34
 1 0      5.0  163.8   23.7   53.0   63.0  .30   .050  2.00   .63  2.00   .10  2.00   .36  2.00   .11
 2 0     10.0  158.8   36.4   40.9   54.1  .44   .050  2.00  1.06  2.00   .17  2.00   .50  2.00   .15
 3 0     15.0  153.8   44.5   33.5   47.8  .57   .050  2.00  1.37  2.00   .21  2.00   .63  2.00   .18
 4 0     20.0  148.8   50.1   28.6   43.0  .69   .050  2.00  1.44  2.00   .22  2.00   .68  2.00   .19
 5 0     25.0  143.8   54.3   25.1   39.4  .80   .050  2.00  1.46  2.00   .23  2.00   .74  2.00   .19
 6 0     30.0  138.8   57.6   22.5   36.7  .90   .050  2.00  1.45  2.00   .23  2.00   .78  2.00   .19
 7 0     35.0  133.8   60.3   20.5   34.5 1.00   .050  2.00  1.43  2.00   .22  2.00   .81  2.00   .19
 8 0     40.0  128.8   62.6   19.0   32.8 1.09   .050  2.00  1.41  2.00   .22  2.00   .83  2.00   .19
 9 0     45.0  123.8   64.6   17.8   31.5 1.17   .050  2.00  1.37  2.00   .22  2.00   .84  2.00   .19
10 0     50.0  118.8   66.4   16.9   30.5 1.24   .050  2.00  1.34  2.00   .21  2.00   .85  2.00   .18
11 0     55.0  113.8   68.0   16.2   29.8 1.30   .050  2.00  1.31  2.00   .21  2.00   .84  2.00   .18
12 0     60.0  108.8   69.5   15.7   29.3 1.35   .050  2.00  1.28  2.00   .20  2.00   .83  2.00   .17
13 0     65.0  103.8   70.9   15.3   29.1 1.39   .050  2.00  1.25  2.00   .20  2.00   .81  2.00   .17
14 0     70.0   98.8   72.3   15.0   29.1 1.42   .050  2.00  1.23  2.00   .20  2.00   .78  2.00   .16
15 0     75.0   93.8   73.6   14.9   29.3 1.44   .050  2.00  1.20  2.00   .19  2.00   .75  2.00   .15
16 0     80.0   88.8   74.9   14.8   29.8 1.45   .050  2.00  1.18  2.00   .19  2.00   .71  2.00   .14
17 1     85.0   83.8   76.2   14.9   30.5 1.45   .050  2.00  1.15  2.00   .18  2.00   .66  2.00   .13
18 1     90.0   78.8   77.5   15.1   31.5 1.43   .050  2.00  1.13  2.00   .18  2.00   .61  2.00   .12
19 1     95.0   73.8   78.9   15.4   32.8 1.41   .050  2.00  1.11  2.00   .18  2.00   .55  2.00   .11
20 1    100.0   68.8   80.3   15.9   34.5 1.37   .050  2.00  1.08  2.00   .17  2.00   .49  2.00   .10
21 1    105.0   63.8   81.9   16.5   36.7 1.32   .050  2.00  1.05  2.00   .17  2.00   .42  2.00   .09
22 1    110.0   58.8   83.5   17.3   39.4 1.27   .050  2.00  1.02  2.00   .16  2.00   .35  2.00   .08
23 1    115.0   53.8   85.4   18.4   43.0 1.20   .050  2.00   .99  2.00   .16  2.00   .27  2.00   .06
24 1    120.0   48.8   87.5   19.7   47.8 1.13   .050  2.00   .94  2.00   .15  2.00   .20  2.00   .05
25 1    125.0   43.8   90.0   21.4   54.1 1.04   .050  2.00   .89  2.00   .14  2.00   .13  2.00   .03
26 1    130.0   38.8   93.0   23.7   63.0  .95   .050  2.00   .82  2.00   .13  2.00   .07  2.00   .02
27 1    135.0   33.8   96.7   26.7   76.0  .85   .050  2.00   .72  2.00   .11  2.00   .03  2.00   .01
28 0    140.0   28.8  101.6   30.8   96.7  .74   .050  2.00   .60  2.00   .09  2.00   .01  2.00   .00
29 0    145.0   23.8  108.2   36.8  134.4  .63   .050  2.00   .44  2.00   .07  2.00   .00  2.00   .00
30 0    150.0   18.8  118.2   46.1  222.8  .51   .050  2.00   .26  2.00   .04  2.00   .00  2.00   .00
31 0    155.0   13.8  135.1   62.4  666.8  .38   .050  2.00   .10  2.00   .02  2.00   .00  2.00   .00
32 0       .1  168.6    1.0   75.0   75.5  .05   .093  5.54   .33  2.00   .05  5.54   .36  2.00   .11
33 1     84.4   84.4   76.0   14.9   30.4 1.45   .050  2.00  1.16  2.00   .19  2.00   .67  2.00   .14
34 1    138.5   30.2  100.0   29.5   89.5  .77   .050  2.00   .64  2.00   .10  2.00   .01  2.00   .00
34
 1 0   5.000   .050   .006   .003  -.003   .003   .001   .000  -.001   .000   .012   .008  -.006   .008
 2 0  10.000   .050   .012   .004  -.006   .004   .004   .001  -.002   .001   .018   .011  -.009   .010
 3 0  15.000   .050   .016   .006  -.008   .005   .006   .001  -.004   .001   .023   .013  -.011   .011
 4 0  20.000   .050   .018   .006  -.009   .006   .008   .002  -.005   .001   .023   .013  -.011   .011
 5 0  25.000   .050   .019   .007  -.010   .006   .010   .002  -.006   .002   .023   .014  -.011   .011
 6 0  30.000   .050   .020   .008  -.010   .006   .011   .002  -.006   .002   .023   .014  -.011   .011
 7 0  35.000   .050   .020   .008  -.010   .006   .012   .003  -.007   .002   .023   .014  -.011   .011
 8 0  40.000   .050   .020   .008  -.010   .006   .013   .003  -.007   .002   .022   .014  -.010   .011
 9 0  45.000   .050   .020   .009  -.010   .006   .013   .003  -.007   .002   .022   .014  -.010   .010
10 0  50.000   .050   .020   .009  -.010   .006   .013   .003  -.008   .002   .021   .014  -.010   .010
11 0  55.000   .050   .020   .009  -.010   .006   .014   .003  -.008   .002   .021   .014  -.010   .010
12 0  60.000   .050   .019   .009  -.010   .006   .014   .003  -.008   .002   .020   .014  -.009   .009
13 0  65.000   .050   .019   .008  -.010   .006   .014   .003  -.008   .002   .020   .013  -.009   .009
14 0  70.000   .050   .019   .008  -.009   .005   .013   .003  -.008   .002   .019   .013  -.009   .009
15 0  75.000   .050   .018   .008  -.009   .005   .013   .003  -.007   .002   .019   .012  -.009   .008
16 0  80.000   .050   .018   .007  -.009   .005   .013   .003  -.007   .002   .018   .012  -.009   .008
17 1  85.000   .050   .017   .007  -.009   .004   .013   .002  -.007   .002   .018   .011  -.008   .007
18 1  90.000   .050   .017   .006  -.009   .004   .012   .002  -.007   .002   .018   .010  -.008   .007
19 1  95.000   .050   .017   .006  -.008   .004   .012   .002  -.007   .001   .017   .010  -.008   .006
20 1 100.000   .050   .016   .005  -.008   .003   .011   .002  -.006   .001   .017   .009  -.008   .006
21 1 105.000   .050   .016   .004  -.008   .003   .011   .001  -.006   .001   .017   .008  -.008   .005
22 1 110.000   .050   .015   .003  -.008   .002   .010   .001  -.006   .001   .016   .006  -.008   .005
23 1 115.000   .050   .014   .003  -.007   .002   .009   .001  -.005   .000   .016   .005  -.007   .004
24 1 120.000   .050   .013   .002  -.007   .001   .008   .000  -.005   .000   .015   .004  -.007   .003
25 1 125.000   .050   .012   .001  -.006   .001   .007   .000  -.004   .000   .014   .003  -.007   .002
26 1 130.000   .050   .011   .001  -.006   .000   .006   .000  -.003   .000   .013   .002  -.006   .001
27 1 135.000   .050   .009   .000  -.005   .000   .005   .000  -.003   .000   .012   .001  -.005   .001
28 0 140.000   .050   .007   .000  -.004   .000   .003   .000  -.002   .000   .010   .000  -.005   .000
29 0 145.000   .050   .005   .000  -.003   .000   .002   .000  -.001   .000   .007   .000  -.003   .000
30 0 150.000   .050   .003   .000  -.001   .000   .001   .000  -.000   .000   .005   .000  -.002   .000
31 0 155.000   .050   .001   .000  -.000   .000   .000   .000   .000   .000   .002   .000  -.001   .000
32 0    .149   .093   .003   .003  -.001   .003   .000   .000  -.000   .000   .007   .009  -.003   .009
33 1  84.375   .050   .017   .007  -.009   .005   .013   .002  -.007   .002   .018   .011  -.008   .007
34 1 138.536   .050   .008   .000  -.004   .000   .004   .000  -.002   .000   .010   .000  -.005   .000
```

APPENDIX I

***** A C E 2 5 8 8 --- ASSESSMENT OF CHEMICAL EXPOSURE FOR AB 2588 --- VERSION 93288 *****

*** A MULTI-SOURCE, MULTI-POLLUTANT, MULTI-PATHWAY RISK ASSESSMENT MODEL

DEVELOPED BY APPLIED MODELING INC. AND SANTA BARBARA COUNTY APCD ***

Distributed and Maintained by CAPCOA

*** INPUT MODELING PARAMETERS ***

DISPERSION MODELING OPTION =	1
RISK ASSESSMENT OPTION =	0
NONCANCER ACUTE OPTION =	1
DIAGNOSTIC PRINT OUTPUT OPTION =	0
NUMBER OF RECEPTORS =	451
NUMBER OF SOURCES =	46
NUMBER OF POLLUTANTS =	22
NUMBER OF DISPERSION MODELING HOURS =	8760
NUMBER OF DISPERSION MODELING DAYS =	365

IDODIS = 1 ==> ISCST DISPERSION MODELING WITH SEQUENTIAL METEOROLOGY
ANNUAL CONCENTRATIONS COMPUTED AS AVERAGES OF 1-HOUR CONC.

IDORISK = 0 ==> FULL MODEL RUN FOR RISK ASSESSMENT FROM ALL SOURCES AT ALL RECEPTORS

IDOACU = 1 ==> NONCANCER ACUTE EXPOSURE PERFORMED

IDOPRT = 0 ==> DIAGNOSTIC PRINT OUTPUT NOT CREATED

IDENTIFICATION NUMBERS OF MODELED POLLUTANTS:

1 3 10 13 17 22 36 38 70 79 83 85 87 111 110
130 134 137 145 151 152 998

*** POLLUTANT-SPECIFIC DATA ***

NAME	SYMBOL	NUM	UNIT RISK (ug/m3)-1	POTENCY (mg/kg-d)-1	ACUTE AEL (ug/m3)	CHRONIC AEL (ug/m3)	ORAL DOSE (mg/kg-d)	CHRONIC TOX ENDPOINTS CV	CN	IM	KI	LI	RP	RE	SK	ACUTE TOX ENDPOINTS CV	CN	IM	KI	LI	RP	RE	EY
Acetaldehyde	ACETA	1	2.70E-06	0.00E+00	0.00E+00	9.00E+00	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Acrolein	ACROL	3	0.00E+00	0.00E+00	2.50E+00	2.00E-02	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Arsenic	As	10	3.30E-03	1.70E+00	0.00E+00	5.00E-01	1.00E-03	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Benzene	BENZE	13	2.90E-05	0.00E+00	0.00E+00	7.10E+01	0.00E+00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beryllium	Be	17	2.40E-03	4.30E+00	0.00E+00	4.80E-03	5.00E-03	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Cadmium	Cd	22	4.20E-03	0.00E+00	0.00E+00	3.50E+00	1.00E-03	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
Chromium (hex.)	Cr	36	1.40E-01	4.20E-01	0.00E+00	2.00E-03	5.00E-03	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0
Copper	Cu	38	0.00E+00	0.00E+00	1.00E+01	2.40E+00	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Formaldehyde	HCHO	70	6.00E-06	0.00E+00	3.70E+02	3.60E+00	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Hydrogen cyanide	HCN	79	0.00E+00	0.00E+00	3.30E+03	7.00E+01	0.00E+00	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Lead	Pb	83	8.00E-05	0.00E+00	0.00E+00	1.50E+00	4.30E-04	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0
Manganese	Mn	85	0.00E+00	0.00E+00	0.00E+00	4.00E-01	0.00E+00	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Mercury	Hg	87	0.00E+00	0.00E+00	3.00E+01	3.00E-01	3.00E-04	1	1	0	1	1	0	1	0	0	1	0	1	1	0	0	0
Nickel	Ni	111	2.60E-04	0.00E+00	1.00E+00	2.40E-01	0.00E+00	0	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0
Naphthalene	NAPTH	110	0.00E+00	0.00E+00	0.00E+00	1.40E+01	4.00E-03	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polycyclic arom. HC	PAH	130	1.70E-03	1.15E+01	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propylene	PROPL	134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenium	Se	137	1.40E-04	0.00E+00	2.00E+00	5.00E-01	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Toluene	TOL	145	0.00E+00	0.00E+00	0.00E+00	2.00E+02	0.00E+00	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Xylene	XYLEN	151	0.00E+00	0.00E+00	4.40E+03	3.00E+02	0.00E+00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0
Zinc	Zn	152	0.00E+00	0.00E+00	0.00E+00	3.50E+01	0.00E+00	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
NonToxic PM10	NTXPM	998	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL NUMBER OF MODELED POLLUTANTS = 22

NUMBER OF CARCINOGENIC POLLUTANTS = 11

1 10 13 17 22 36 70 83 111 130
137

NUMBER OF MULTIPATHWAY POLLUTANTS = 8

10 17 22 36 83 87 110 130

NUMBER OF POLLUTANTS WITH ACUTE NON-CANCER RISK = 8

3 38 70 79 87 111 137 151

MAXIMUM NUMBER OF ACUTE TOXICOLOGICAL ENDPOINTS = 3

NUMBER OF POLLUTANTS WITH CHRONIC NON-CANCER RISK = 19

1 3 10 13 17 22 36 38 70 79
83 85 87 111 110 137 145 151 152

MAXIMUM NUMBER OF CHRONIC TOXICOLOGICAL ENDPOINTS = 5

REQUIRED TOTAL ARRAY SIZE = 947848 WORDS

*** INPUT SOURCE EMISSION RATES ****

FOR SOURCE # 1 DRILLING_PIT1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.572E-07	2.041E-06	1.950E-07	1.356E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.551E-07	1.231E-06	2.671E-08	1.857E-03
Cd	22	9.277E-09	7.363E-08	7.011E-09	4.874E-04
Cr	36	1.508E-09	1.197E-08	1.268E-09	8.816E-05
Cu	38	2.157E-08	1.712E-07	1.641E-08	1.141E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	8.970E-08	7.119E-07	4.150E-08	2.885E-03
Mn	85	2.362E-07	1.875E-06	1.985E-07	1.380E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	7.844E-09	6.225E-08	5.933E-09	4.125E-04
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.296E-08	2.616E-07	2.507E-08	1.743E-03
NTXPM	998	3.017E-03	2.394E-02	2.535E-03	1.762E+02

FOR SOURCE # 2 DRILLING_PIT2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.572E-07	2.041E-06	1.950E-07	1.356E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.551E-07	1.231E-06	2.671E-08	1.857E-03
Cd	22	9.277E-09	7.363E-08	7.011E-09	4.874E-04
Cr	36	1.508E-09	1.197E-08	1.268E-09	8.816E-05
Cu	38	2.157E-08	1.712E-07	1.641E-08	1.141E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	8.970E-08	7.119E-07	4.150E-08	2.885E-03
Mn	85	2.362E-07	1.875E-06	1.985E-07	1.380E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	7.844E-09	6.225E-08	5.933E-09	4.125E-04
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.296E-08	2.616E-07	2.507E-08	1.743E-03
NTXPM	998	3.017E-03	2.394E-02	2.535E-03	1.762E+02

FOR SOURCE # 3 DRILLING_PIT3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.850E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	9.902E-07	7.859E-06	7.509E-07	5.221E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	5.972E-07	4.740E-06	1.028E-07	7.147E-03
Cd	22	3.572E-08	2.835E-07	2.699E-08	1.876E-03
Cr	36	5.808E-09	4.610E-08	4.881E-09	3.393E-04
Cu	38	8.305E-08	6.591E-07	6.319E-08	4.393E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.454E-07	2.741E-06	1.598E-07	1.111E-02
Mn	85	9.095E-07	7.218E-06	7.643E-07	5.314E-02

Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	3.020E-08	2.397E-07	2.284E-08	1.588E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.269E-07	1.007E-06	9.651E-08	6.710E-03
NTXPM	998	1.162E-02	9.222E-02	9.762E-03	6.787E+02

FOR SOURCE # 4 DRILLING_PIT4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.725E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.215E-06	9.643E-06	9.216E-07	6.407E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	7.330E-07	5.817E-06	1.262E-07	8.774E-03
Cd	22	4.383E-08	3.479E-07	3.313E-08	2.303E-03
Cr	36	7.128E-09	5.657E-08	5.990E-09	4.164E-04
Cu	38	1.019E-07	8.087E-07	7.755E-08	5.392E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	4.239E-07	3.364E-06	1.961E-07	1.363E-02
Mn	85	1.116E-06	8.857E-06	9.380E-07	6.521E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	3.706E-08	2.941E-07	2.803E-08	1.949E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.557E-07	1.236E-06	1.184E-07	8.232E-03
NTXPM	998	1.426E-02	1.132E-01	1.198E-02	8.329E+02

FOR SOURCE # 5 DRILLING_PIT5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.520E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.909E-07	3.102E-06	2.965E-07	2.061E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.358E-07	1.871E-06	4.059E-08	2.822E-03
Cd	22	1.410E-08	1.119E-07	1.066E-08	7.411E-04
Cr	36	2.293E-09	1.820E-08	1.927E-09	1.340E-04
Cu	38	3.279E-08	2.602E-07	2.495E-08	1.735E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.364E-07	1.083E-06	6.308E-08	4.386E-03
Mn	85	3.591E-07	2.850E-06	3.018E-07	2.098E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.192E-08	9.460E-08	9.018E-09	6.270E-04
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	5.010E-08	3.976E-07	3.810E-08	2.649E-03
NTXPM	998	4.586E-03	3.640E-02	3.854E-03	2.679E+02

FOR SOURCE # 6 DRILLING_PIT6
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.520E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.909E-07	3.102E-06	2.965E-07	2.061E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.358E-07	1.871E-06	4.059E-08	2.822E-03
Cd	22	1.410E-08	1.119E-07	1.066E-08	7.411E-04
Cr	36	2.293E-09	1.820E-08	1.927E-09	1.340E-04
Cu	38	3.279E-08	2.602E-07	2.495E-08	1.735E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.364E-07	1.083E-06	6.308E-08	4.386E-03
Mn	85	3.591E-07	2.850E-06	3.018E-07	2.098E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.192E-08	9.460E-08	9.018E-09	6.270E-04
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00

PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	5.010E-08	3.976E-07	3.810E-08	2.649E-03
NTXPM	998	4.586E-03	3.640E-02	3.854E-03	2.679E+02

FOR SOURCE # 7 BLASTING_PIT1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	3.348E-06	2.328E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	4.623E-07	3.214E-02
Cd	22	3.017E-05	2.394E-04	1.203E-07	8.364E-03
Cr	36	9.891E-06	7.850E-05	2.178E-08	1.514E-03
Cu	38	7.451E-05	5.913E-04	2.817E-07	1.958E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	7.140E-07	4.964E-02
Mn	85	1.549E-03	1.229E-02	3.411E-06	2.371E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	1.019E-07	7.084E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	4.303E-07	2.992E-02
NTXPM	998	1.978E+01	1.570E+02	4.356E-02	3.028E+03

FOR SOURCE # 8 BLASTING_PIT2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	3.348E-06	2.328E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	4.623E-07	3.214E-02
Cd	22	3.017E-05	2.394E-04	1.203E-07	8.364E-03
Cr	36	9.891E-06	7.850E-05	2.178E-08	1.514E-03
Cu	38	7.451E-05	5.913E-04	2.817E-07	1.958E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	7.140E-07	4.964E-02
Mn	85	1.549E-03	1.229E-02	3.411E-06	2.371E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	1.019E-07	7.084E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	4.303E-07	2.992E-02
NTXPM	998	1.978E+01	1.570E+02	4.356E-02	3.028E+03

FOR SOURCE # 9 BLASTING_PIT3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	1.289E-05	8.962E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	1.780E-06	1.238E-01
Cd	22	3.017E-05	2.394E-04	4.633E-07	3.221E-02
Cr	36	9.891E-06	7.850E-05	8.385E-08	5.830E-03
Cu	38	7.451E-05	5.913E-04	1.085E-06	7.543E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	2.749E-06	1.911E-01
Mn	85	1.549E-03	1.229E-02	1.313E-05	9.128E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	3.925E-07	2.729E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Zn	152	1.134E-04	9.000E-04	1.657E-06	1.152E-01
NTXPM	998	1.978E+01	1.570E+02	1.677E-01	1.166E+04

FOR SOURCE # 10 BLASTING_PIT4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	1.582E-05	1.100E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	2.184E-06	1.518E-01
Cd	22	3.017E-05	2.394E-04	5.686E-07	3.953E-02
Cr	36	9.891E-06	7.850E-05	1.029E-07	7.154E-03
Cu	38	7.451E-05	5.913E-04	1.331E-06	9.254E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	3.374E-06	2.346E-01
Mn	85	1.549E-03	1.229E-02	1.611E-05	1.120E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	4.817E-07	3.349E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	2.033E-06	1.413E-01
NTXPM	998	1.978E+01	1.570E+02	2.058E-01	1.431E+04

FOR SOURCE # 11 BLASTING_PIT5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	5.089E-06	3.538E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	7.026E-07	4.885E-02
Cd	22	3.017E-05	2.394E-04	1.829E-07	1.272E-02
Cr	36	9.891E-06	7.850E-05	3.310E-08	2.301E-03
Cu	38	7.451E-05	5.913E-04	4.282E-07	2.977E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	1.085E-06	7.543E-02
Mn	85	1.549E-03	1.229E-02	5.184E-06	3.604E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	1.550E-07	1.078E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	6.540E-07	4.547E-02
NTXPM	998	1.978E+01	1.570E+02	6.621E-02	4.603E+03

FOR SOURCE # 12 BLASTING_PIT6
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	5.089E-06	3.538E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	7.026E-07	4.885E-02
Cd	22	3.017E-05	2.394E-04	1.829E-07	1.272E-02
Cr	36	9.891E-06	7.850E-05	3.310E-08	2.301E-03
Cu	38	7.451E-05	5.913E-04	4.282E-07	2.977E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	1.085E-06	7.543E-02
Mn	85	1.549E-03	1.229E-02	5.184E-06	3.604E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	1.550E-07	1.078E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	6.540E-07	4.547E-02
NTXPM	998	1.978E+01	1.570E+02	6.621E-02	4.603E+03

FOR SOURCE # 13 TRKLOAD_PIT1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.144E-06	1.702E-05	2.875E-06	1.999E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.527E-06	2.006E-05	3.937E-07	2.737E-02
Cd	22	7.494E-08	5.948E-07	1.033E-07	7.182E-03
Cr	36	2.457E-08	1.950E-07	1.869E-08	1.299E-03
Cu	38	1.851E-07	1.469E-06	2.419E-07	1.682E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.461E-06	1.160E-05	6.116E-07	4.252E-02
Mn	85	3.848E-06	3.054E-05	2.926E-06	2.034E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.278E-07	1.014E-06	8.745E-08	6.080E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.817E-07	2.236E-06	3.695E-07	2.569E-02
NTXPM	998	4.914E-02	3.900E-01	3.737E-02	2.598E+03

FOR SOURCE # 14 TRKLOAD_PIT2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.144E-06	1.702E-05	2.875E-06	1.999E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.527E-06	2.006E-05	3.937E-07	2.737E-02
Cd	22	7.494E-08	5.948E-07	1.033E-07	7.182E-03
Cr	36	2.457E-08	1.950E-07	1.869E-08	1.299E-03
Cu	38	1.851E-07	1.469E-06	2.419E-07	1.682E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.461E-06	1.160E-05	6.116E-07	4.252E-02
Mn	85	3.848E-06	3.054E-05	2.926E-06	2.034E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.278E-07	1.014E-06	8.745E-08	6.080E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.817E-07	2.236E-06	3.695E-07	2.569E-02
NTXPM	998	4.914E-02	3.900E-01	3.737E-02	2.598E+03

FOR SOURCE # 15 TRKLOAD_PIT3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.850E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.253E-06	6.550E-05	1.107E-05	7.696E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	9.728E-06	7.721E-05	1.516E-06	1.054E-01
Cd	22	2.885E-07	2.290E-06	3.978E-07	2.766E-02
Cr	36	9.460E-08	7.508E-07	7.194E-08	5.002E-03
Cu	38	7.126E-07	5.656E-06	9.314E-07	6.475E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.625E-06	4.464E-05	2.355E-06	1.637E-01
Mn	85	1.481E-05	1.175E-04	1.127E-05	7.835E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	4.919E-07	3.904E-06	3.367E-07	2.341E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.085E-06	8.611E-06	1.422E-06	9.886E-02
NTXPM	998	1.892E-01	1.502E+00	1.439E-01	1.000E+04

FOR SOURCE # 16 TRKLOAD_PIT4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.725E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.013E-05	8.040E-05	1.358E-05	9.441E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.194E-05	9.476E-05	1.860E-06	1.293E-01
Cd	22	3.541E-07	2.810E-06	4.882E-07	3.394E-02
Cr	36	1.161E-07	9.214E-07	8.829E-08	6.138E-03
Cu	38	8.746E-07	6.941E-06	1.143E-06	7.947E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	6.904E-06	5.479E-05	2.890E-06	2.009E-01
Mn	85	1.818E-05	1.443E-04	1.383E-05	9.615E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	6.037E-07	4.791E-06	4.132E-07	2.873E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.331E-06	1.056E-05	1.746E-06	1.214E-01
NTXPM	998	2.322E-01	1.843E+00	1.766E-01	1.228E+04

FOR SOURCE # 17 TRKLOAD_PIT5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.520E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.258E-06	2.586E-05	4.370E-06	3.038E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.841E-06	3.048E-05	5.983E-07	4.160E-02
Cd	22	1.139E-07	9.040E-07	1.571E-07	1.092E-02
Cr	36	3.735E-08	2.964E-07	2.840E-08	1.974E-03
Cu	38	2.814E-07	2.233E-06	3.677E-07	2.556E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.221E-06	1.763E-05	9.297E-07	6.464E-02
Mn	85	5.849E-06	4.642E-05	4.448E-06	3.092E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.942E-07	1.541E-06	1.329E-07	9.240E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	4.283E-07	3.399E-06	5.616E-07	3.904E-02
NTXPM	998	7.469E-02	5.928E-01	5.680E-02	3.949E+03

FOR SOURCE # 18 TRKLOAD_PIT6
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.520E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.258E-06	2.586E-05	4.370E-06	3.038E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.841E-06	3.048E-05	5.983E-07	4.160E-02
Cd	22	1.139E-07	9.040E-07	1.571E-07	1.092E-02
Cr	36	3.735E-08	2.964E-07	2.840E-08	1.974E-03
Cu	38	2.814E-07	2.233E-06	3.677E-07	2.556E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.221E-06	1.763E-05	9.297E-07	6.464E-02
Mn	85	5.849E-06	4.642E-05	4.448E-06	3.092E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.942E-07	1.541E-06	1.329E-07	9.240E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	4.283E-07	3.399E-06	5.616E-07	3.904E-02
NTXPM	998	7.469E-02	5.928E-01	5.680E-02	3.949E+03

FOR SOURCE # 19 HAUL_1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.500E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.489E-06	1.975E-05	1.439E-06	1.000E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	9.123E-09	7.240E-08	5.274E-09	3.667E-04
Cd	22	8.977E-08	7.125E-07	5.190E-08	3.608E-03
Cr	36	1.460E-08	1.159E-07	8.438E-09	5.866E-04
Cu	38	2.087E-07	1.656E-06	1.207E-07	8.392E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.803E-07	3.018E-06	2.198E-07	1.528E-02
Mn	85	2.286E-06	1.814E-05	1.321E-06	9.184E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	6.642E-08	5.271E-07	3.839E-08	2.669E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.190E-07	2.532E-06	1.844E-07	1.282E-02
NTXPM	998	2.919E-02	2.317E-01	1.688E-02	1.174E+03

FOR SOURCE # 20 HAUL 2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.500E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.489E-06	1.975E-05	1.439E-06	1.000E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	9.123E-09	7.240E-08	5.274E-09	3.667E-04
Cd	22	8.977E-08	7.125E-07	5.190E-08	3.608E-03
Cr	36	1.460E-08	1.159E-07	8.438E-09	5.866E-04
Cu	38	2.087E-07	1.656E-06	1.207E-07	8.392E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.803E-07	3.018E-06	2.198E-07	1.528E-02
Mn	85	2.286E-06	1.814E-05	1.321E-06	9.184E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	6.642E-08	5.271E-07	3.839E-08	2.669E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.190E-07	2.532E-06	1.844E-07	1.282E-02
NTXPM	998	2.919E-02	2.317E-01	1.688E-02	1.174E+03

FOR SOURCE # 21 HAUL 3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 9.625E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	9.582E-06	7.605E-05	5.539E-06	3.851E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.512E-08	2.787E-07	2.030E-08	1.411E-03
Cd	22	3.456E-07	2.743E-06	1.998E-07	1.389E-02
Cr	36	5.620E-08	4.460E-07	3.249E-08	2.259E-03
Cu	38	8.037E-07	6.379E-06	4.646E-07	3.230E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.464E-06	1.162E-05	8.463E-07	5.884E-02
Mn	85	8.801E-06	6.985E-05	5.088E-06	3.537E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.557E-07	2.029E-06	1.478E-07	1.028E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.228E-06	9.746E-06	7.099E-07	4.935E-02
NTXPM	998	1.124E-01	8.921E-01	6.498E-02	4.518E+03

FOR SOURCE # 22 HAUL 4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.181E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.176E-05	9.333E-05	6.798E-06	4.726E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	4.311E-08	3.421E-07	2.492E-08	1.733E-03

Cd	22	4.242E-07	3.367E-06	2.452E-07	1.705E-02
Cr	36	6.897E-08	5.474E-07	3.987E-08	2.772E-03
Cu	38	9.863E-07	7.828E-06	5.702E-07	3.964E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.797E-06	1.426E-05	1.039E-06	7.224E-02
Mn	85	1.080E-05	8.571E-05	6.244E-06	4.341E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	3.138E-07	2.490E-06	1.814E-07	1.261E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.507E-06	1.196E-05	8.712E-07	6.057E-02
NTXPM	998	1.379E-01	1.094E+00	7.974E-02	5.544E+03

FOR SOURCE # 23 HAUL_5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.800E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.783E-06	3.002E-05	2.187E-06	1.520E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.387E-08	1.101E-07	8.016E-09	5.573E-04
Cd	22	1.365E-07	1.083E-06	7.888E-08	5.484E-03
Cr	36	2.219E-08	1.761E-07	1.283E-08	8.920E-04
Cu	38	3.173E-07	2.518E-06	1.834E-07	1.275E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.780E-07	4.587E-06	3.341E-07	2.323E-02
Mn	85	3.475E-06	2.758E-05	2.009E-06	1.397E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.010E-07	8.016E-07	5.836E-08	4.057E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	4.848E-07	3.848E-06	2.803E-07	1.949E-02
NTXPM	998	4.438E-02	3.522E-01	2.565E-02	1.783E+03

FOR SOURCE # 24 HAUL_6
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.800E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.783E-06	3.002E-05	2.187E-06	1.520E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.387E-08	1.101E-07	8.016E-09	5.573E-04
Cd	22	1.365E-07	1.083E-06	7.888E-08	5.484E-03
Cr	36	2.219E-08	1.761E-07	1.283E-08	8.920E-04
Cu	38	3.173E-07	2.518E-06	1.834E-07	1.275E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.780E-07	4.587E-06	3.341E-07	2.323E-02
Mn	85	3.475E-06	2.758E-05	2.009E-06	1.397E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.010E-07	8.016E-07	5.836E-08	4.057E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	4.848E-07	3.848E-06	2.803E-07	1.949E-02
NTXPM	998	4.438E-02	3.522E-01	2.565E-02	1.783E+03

FOR SOURCE # 25 BAGHOUSE_1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.937E-06	3.125E-05	5.993E-06	4.167E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	4.641E-06	3.683E-05	7.063E-06	4.910E-01
Cd	22	1.376E-07	1.092E-06	2.095E-07	1.457E-02
Cr	36	4.513E-08	3.582E-07	6.869E-08	4.776E-03
Cu	38	6.799E-07	5.396E-06	5.175E-07	3.598E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00

HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.684E-06	2.130E-05	4.085E-06	2.840E-01
Mn	85	7.067E-06	5.609E-05	1.076E-05	7.481E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	4.693E-07	3.725E-06	3.572E-07	2.483E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	5.175E-07	4.107E-06	7.876E-07	5.476E-02
NTXPM	998	1.805E-01	1.433E+00	1.374E-01	9.553E+03

FOR SOURCE # 26 TRU-WST_1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.156E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	4.069E-06	3.229E-05	4.837E-06	3.363E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	4.795E-06	3.806E-05	1.773E-08	1.233E-03
Cd	22	1.422E-07	1.129E-06	1.745E-07	1.213E-02
Cr	36	4.663E-08	3.701E-07	2.837E-08	1.972E-03
Cu	38	3.513E-07	2.788E-06	4.057E-07	2.821E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.773E-06	2.201E-05	7.390E-07	5.138E-02
Mn	85	7.303E-06	5.796E-05	4.443E-06	3.089E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.425E-07	1.925E-06	1.291E-07	8.976E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	5.347E-07	4.244E-06	6.199E-07	4.310E-02
NTXPM	998	5.181E-02	4.112E-01	5.674E-02	3.945E+03

FOR SOURCE # 27 TRU-WST_2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.331E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.173E-06	6.487E-05	9.716E-06	6.755E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	9.633E-06	7.645E-05	3.562E-08	2.476E-03
Cd	22	2.857E-07	2.267E-06	3.505E-07	2.437E-02
Cr	36	9.367E-08	7.434E-07	5.699E-08	3.962E-03
Cu	38	7.057E-07	5.601E-06	8.149E-07	5.665E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.570E-06	4.421E-05	1.485E-06	1.032E-01
Mn	85	1.467E-05	1.164E-04	8.924E-06	6.204E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	4.871E-07	3.866E-06	2.593E-07	1.803E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.074E-06	8.524E-06	1.245E-06	8.656E-02
NTXPM	998	1.041E-01	8.262E-01	1.140E-01	7.926E+03

FOR SOURCE # 28 TRU-WST_3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.371E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.587E-06	2.053E-05	3.076E-06	2.139E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.049E-06	2.420E-05	1.127E-08	7.835E-04
Cd	22	9.043E-08	7.177E-07	1.109E-07	7.710E-03
Cr	36	2.965E-08	2.353E-07	1.804E-08	1.254E-03
Cu	38	2.234E-07	1.773E-06	2.580E-07	1.794E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.763E-06	1.399E-05	4.699E-07	3.267E-02
Mn	85	4.643E-06	3.685E-05	2.825E-06	1.964E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Ni	111	1.542E-07	1.224E-06	8.208E-08	5.707E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.400E-07	2.698E-06	3.941E-07	2.740E-02
NTXPM	998	3.294E-02	2.614E-01	3.608E-02	2.508E+03

FOR SOURCE # 29 TRU-WST_4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.569E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	4.846E-06	3.846E-05	5.762E-06	4.006E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	5.712E-06	4.533E-05	2.112E-08	1.468E-03
Cd	22	1.694E-07	1.344E-06	2.078E-07	1.445E-02
Cr	36	5.555E-08	4.409E-07	3.379E-08	2.349E-03
Cu	38	4.185E-07	3.321E-06	4.833E-07	3.360E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.303E-06	2.621E-05	8.803E-07	6.120E-02
Mn	85	8.699E-06	6.904E-05	5.292E-06	3.679E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.889E-07	2.293E-06	1.538E-07	1.069E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	6.370E-07	5.056E-06	7.384E-07	5.134E-02
NTXPM	998	6.172E-02	4.898E-01	6.759E-02	4.699E+03

FOR SOURCE # 30 TRU-WST_5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 5.041E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	9.512E-06	7.549E-05	1.131E-05	7.863E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.121E-05	8.897E-05	4.146E-08	2.882E-03
Cd	22	3.325E-07	2.639E-06	4.079E-07	2.836E-02
Cr	36	1.090E-07	8.651E-07	6.633E-08	4.612E-03
Cu	38	8.213E-07	6.518E-06	9.485E-07	6.594E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	6.483E-06	5.145E-05	1.728E-06	1.201E-01
Mn	85	1.707E-05	1.355E-04	1.039E-05	7.224E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.669E-07	4.499E-06	3.018E-07	2.098E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.250E-06	9.921E-06	1.449E-06	1.007E-01
NTXPM	998	1.211E-01	9.611E-01	1.327E-01	9.226E+03

FOR SOURCE # 31 DOZING WASTE_1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.156E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.827E-06	2.244E-05	3.227E-07	2.244E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.036E-08	8.222E-08	1.183E-09	8.225E-05
Cd	22	1.020E-07	8.095E-07	1.164E-08	8.093E-04
Cr	36	1.658E-08	1.316E-07	1.893E-09	1.316E-04
Cu	38	2.371E-07	1.882E-06	2.706E-08	1.881E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	4.319E-07	3.428E-06	4.930E-08	3.428E-03
Mn	85	2.596E-06	2.060E-05	2.964E-07	2.061E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	7.543E-08	5.987E-07	8.611E-09	5.987E-04
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.622E-07	2.875E-06	4.135E-08	2.875E-03
NTXPM	998	3.316E-02	2.632E-01	3.785E-03	2.631E+02

FOR SOURCE # 32 DOZING_WASTE_2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.331E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	5.678E-06	4.506E-05	6.482E-07	4.507E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.081E-08	1.652E-07	2.376E-09	1.652E-04
Cd	22	2.048E-07	1.625E-06	2.338E-08	1.625E-03
Cr	36	3.330E-08	2.643E-07	3.802E-09	2.643E-04
Cu	38	4.762E-07	3.779E-06	5.436E-08	3.779E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	8.675E-07	6.885E-06	9.903E-08	6.885E-03
Mn	85	5.215E-06	4.139E-05	5.953E-07	4.139E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.515E-07	1.202E-06	1.730E-08	1.203E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	7.276E-07	5.775E-06	8.306E-08	5.775E-03
NTXPM	998	6.660E-02	5.286E-01	7.603E-03	5.286E+02

FOR SOURCE # 33 DOZING_WASTE_3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.371E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.797E-06	1.426E-05	2.052E-07	1.427E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	6.588E-09	5.229E-08	7.521E-10	5.229E-05
Cd	22	6.483E-08	5.145E-07	7.400E-09	5.145E-04
Cr	36	1.054E-08	8.365E-08	1.203E-09	8.364E-05
Cu	38	1.507E-07	1.196E-06	1.721E-08	1.197E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.746E-07	2.179E-06	3.135E-08	2.180E-03
Mn	85	1.651E-06	1.310E-05	1.884E-07	1.310E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	4.796E-08	3.806E-07	5.475E-09	3.806E-04
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.303E-07	1.828E-06	2.629E-08	1.828E-03
NTXPM	998	2.108E-02	1.673E-01	2.407E-03	1.673E+02

FOR SOURCE # 34 DOZING_WASTE_4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.569E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.367E-06	2.672E-05	3.844E-07	2.672E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.234E-08	9.794E-08	1.409E-09	9.796E-05
Cd	22	1.215E-07	9.643E-07	1.386E-08	9.636E-04
Cr	36	1.975E-08	1.567E-07	2.254E-09	1.567E-04
Cu	38	2.824E-07	2.241E-06	3.224E-08	2.241E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.144E-07	4.083E-06	5.873E-08	4.083E-03
Mn	85	3.093E-06	2.455E-05	3.530E-07	2.454E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	8.985E-08	7.131E-07	1.026E-08	7.133E-04
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	4.315E-07	3.425E-06	4.926E-08	3.425E-03

NTXPM	998	3.950E-02	3.135E-01	4.509E-03	3.135E+02

FOR SOURCE # 35 DOZING_WASTE_5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 5.041E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	6.609E-06	5.245E-05	7.544E-07	5.245E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.423E-08	1.923E-07	2.765E-09	1.922E-04
Cd	22	2.384E-07	1.892E-06	2.721E-08	1.892E-03
Cr	36	3.876E-08	3.076E-07	4.425E-09	3.076E-04
Cu	38	5.543E-07	4.399E-06	6.327E-08	4.399E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.010E-06	8.016E-06	1.153E-07	8.016E-03
Mn	85	6.070E-06	4.817E-05	6.929E-07	4.817E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.764E-07	1.400E-06	2.013E-08	1.400E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	8.469E-07	6.721E-06	9.668E-08	6.722E-03
NTXPM	998	7.752E-02	6.152E-01	8.849E-03	6.152E+02

FOR SOURCE # 36 WIND_EROSION1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.156E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.408E-06	1.117E-05	1.453E-06	1.010E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	5.159E-09	4.094E-08	5.326E-09	3.703E-04
Cd	22	5.077E-08	4.029E-07	5.241E-08	3.644E-03
Cr	36	8.255E-09	6.552E-08	8.521E-09	5.924E-04
Cu	38	1.180E-07	9.365E-07	1.219E-07	8.475E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.150E-07	1.706E-06	2.220E-07	1.543E-02
Mn	85	1.293E-06	1.026E-05	1.334E-06	9.274E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	3.756E-08	2.981E-07	3.877E-08	2.695E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.804E-07	1.432E-06	1.862E-07	1.295E-02
NTXPM	998	1.651E-02	1.310E-01	1.704E-02	1.185E+03

FOR SOURCE # 37 WIND_EROSION2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.331E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.827E-06	2.244E-05	2.918E-06	2.029E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.036E-08	8.222E-08	1.070E-08	7.439E-04
Cd	22	1.020E-07	8.095E-07	1.053E-07	7.321E-03
Cr	36	1.658E-08	1.316E-07	1.712E-08	1.190E-03
Cu	38	2.371E-07	1.882E-06	2.448E-07	1.702E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	4.320E-07	3.429E-06	4.459E-07	3.100E-02
Mn	85	2.597E-06	2.061E-05	2.681E-06	1.864E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	7.545E-08	5.988E-07	7.788E-08	5.415E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.623E-07	2.875E-06	3.740E-07	2.600E-02
NTXPM	998	3.316E-02	2.632E-01	3.423E-02	2.380E+03

FOR SOURCE # 38 WIND_EROSION3

OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.371E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.949E-07	7.102E-06	9.238E-07	6.423E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.281E-09	2.604E-08	3.386E-09	2.354E-04
Cd	22	3.228E-08	2.562E-07	3.332E-08	2.317E-03
Cr	36	5.249E-09	4.166E-08	5.418E-09	3.767E-04
Cu	38	7.506E-08	5.957E-07	7.748E-08	5.387E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.367E-07	1.085E-06	1.411E-07	9.810E-03
Mn	85	8.220E-07	6.524E-06	8.485E-07	5.899E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.388E-08	1.895E-07	2.465E-08	1.714E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.147E-07	9.103E-07	1.184E-07	8.232E-03
NTXPM	998	1.050E-02	8.333E-02	1.084E-02	7.536E+02

FOR SOURCE # 39 WIND_EROSION4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.569E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.677E-06	1.331E-05	1.731E-06	1.203E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	6.146E-09	4.878E-08	6.344E-09	4.411E-04
Cd	22	6.048E-08	4.800E-07	6.243E-08	4.340E-03
Cr	36	9.833E-09	7.804E-08	1.015E-08	7.057E-04
Cu	38	1.406E-07	1.116E-06	1.452E-07	1.009E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.562E-07	2.033E-06	2.644E-07	1.838E-02
Mn	85	1.540E-06	1.222E-05	1.590E-06	1.105E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	4.474E-08	3.551E-07	4.619E-08	3.211E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.149E-07	1.706E-06	2.218E-07	1.542E-02
NTXPM	998	1.967E-02	1.561E-01	2.030E-02	1.411E+03

FOR SOURCE # 40 WIND_EROSION5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 5.041E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.291E-06	2.612E-05	3.397E-06	2.362E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.206E-08	9.571E-08	1.245E-08	8.656E-04
Cd	22	1.187E-07	9.421E-07	1.225E-07	8.517E-03
Cr	36	1.930E-08	1.532E-07	1.992E-08	1.385E-03
Cu	38	2.760E-07	2.190E-06	2.849E-07	1.981E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.028E-07	3.990E-06	5.190E-07	3.608E-02
Mn	85	3.022E-06	2.398E-05	3.120E-06	2.169E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	8.782E-08	6.970E-07	9.065E-08	6.302E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	4.217E-07	3.347E-06	4.353E-07	3.026E-02
NTXPM	998	3.860E-02	3.063E-01	3.985E-02	2.771E+03

FOR SOURCE # 41 ORE_PAD1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 5.993E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME POLLUTANT NUMBER 1-HOUR RATE ANNUAL RATE

		(g/s)	(lb/hr)	(g/s)	(lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	2.040E-01	1.619E+00	2.040E-01	1.418E+04
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 42 ORE PAD2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.188E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	1.085E-01	8.611E-01	1.085E-01	7.543E+03
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 43 MERCURY RETORT
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 44 ADSORPTION
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00

As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	1.134E-03	9.000E-03	1.847E-03	1.284E+02
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 45 FURNACE
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	1.467E-05	1.164E-04	5.225E-07	3.633E-02
Cr	36	1.389E-07	1.102E-06	4.948E-09	3.440E-04
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 46 DIESEL TANK
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** INPUT FACILITY-WIDE EMISSION RATES ***

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	5.308E-03	4.213E-02	1.604E-04	1.115E+01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	6.178E-03	4.903E-02	1.933E-05	1.344E+00
Cd	22	2.003E-04	1.590E-03	6.290E-06	4.373E-01
Cr	36	6.060E-05	4.809E-04	1.035E-06	7.195E-02

Cu	38	4.585E-04	3.639E-03	1.349E-05	9.380E-01
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	3.136E-01	2.489E+00	3.143E-01	2.185E+04
Pb	83	3.583E-03	2.843E-02	3.294E-05	2.290E+00
Mn	85	9.468E-03	7.514E-02	1.613E-04	1.121E+01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	3.144E-04	2.495E-03	4.805E-06	3.341E-01
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	6.973E-04	5.534E-03	2.061E-05	1.433E+00
NTXPM	998	1.207E+02	9.579E+02	2.060E+00	1.432E+05

*** INPUT POLLUTANT BACKGROUND CONCENTRATIONS (ug/m3) ****

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR BACKG.	ANNUAL BACKG.
ACETA	1	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00
Pb	83	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00

OLDEN QUEEN MINING - SOLEDAD MTN PROJECT - ALL RECEPTORS, 1991 MET, PM10 * OUTPUT OF AMI/SBCAPCD ACE2588 MODEL VERS. 93288 *
nput File: g:\beest\GQ\gqpmace.dat Output File: g:\beest\GQ\GQpmACE.OUT 11/14/96 07:00:20 Page - 35

*** INPUT RECEPTOR DATA ***

RECEPTOR #	RECEPTOR NAME	X-COORD	Y-COORD	ELEVATION	POPULATION	GARDEN FRAC	SCREEN X/Q
1	RES_24-1	389400.00	3868050.00	2760.00	0	0.00000	0.000E+00
2	RES_20-1	392550.00	3868000.00	2650.00	0	0.00000	0.000E+00
3	RES_20-2	392600.00	3868000.00	2650.00	0	0.00000	0.000E+00
4	RES_13-1	390250.00	3868800.00	2760.00	0	0.00000	0.000E+00
5	RES_13-2	390300.00	3868750.00	2760.00	0	0.00000	0.000E+00
6	RES_13-3	390300.00	3868500.00	2760.00	0	0.00000	0.000E+00
7	RES_16-1	393500.00	3868200.00	2610.00	0	0.00000	0.000E+00
8	RES_16-2	393750.00	3868300.00	2600.00	0	0.00000	0.000E+00
9	RES_16-3	393800.00	3868450.00	2590.00	0	0.00000	0.000E+00
10	RES_12-1	389750.00	3870450.00	2820.00	0	0.00000	0.000E+00
11	RES_9-1	395050.00	3870600.00	2590.00	0	0.00000	0.000E+00
12	RES_5-1	392200.00	3872600.00	2840.00	0	0.00000	0.000E+00
13	RES_31-1	390800.00	3873450.00	2810.00	0	0.00000	0.000E+00
14	RES_31-2	390750.00	3873400.00	2810.00	0	0.00000	0.000E+00
15	RES_31-3	390700.00	3873400.00	2820.00	0	0.00000	0.000E+00
16	RES_31-4	390650.00	3873200.00	2820.00	0	0.00000	0.000E+00
17	RES_32-1	393500.00	3873700.00	2710.00	0	0.00000	0.000E+00
18	RES_32-2	392450.00	3873750.00	2740.00	0	0.00000	0.000E+00
19	RES_32-3	391950.00	3873950.00	2760.00	0	0.00000	0.000E+00
20	RES_32-4	391900.00	3873400.00	2780.00	0	0.00000	0.000E+00
21	PROP.001	389750.00	3871670.00	2840.00	0	0.00000	0.000E+00
22	PROP.002	389759.00	3871788.00	2850.00	0	0.00000	0.000E+00
23	PROP.003	389778.00	3871908.00	2850.00	0	0.00000	0.000E+00
24	PROP.004	389803.00	3872019.00	2850.00	0	0.00000	0.000E+00
25	PROP.005	389826.00	3872073.00	2850.00	0	0.00000	0.000E+00
26	PROP.006	389928.00	3872271.00	2850.00	0	0.00000	0.000E+00
27	PROP.007	390027.00	3872472.00	2850.00	0	0.00000	0.000E+00
28	PROP.008	390083.00	3872582.00	2835.00	0	0.00000	0.000E+00
29	PROP.009	390203.00	3872720.00	2830.00	0	0.00000	0.000E+00
30	PROP.010	390252.00	3872758.00	2830.00	0	0.00000	0.000E+00
31	PROP.011	390352.00	3872832.00	2820.00	0	0.00000	0.000E+00
32	PROP.012	390434.00	3872889.00	2820.00	0	0.00000	0.000E+00
33	PROP.013	390669.00	3872895.00	2820.00	0	0.00000	0.000E+00
34	PROP.014	390904.00	3872902.00	2820.00	0	0.00000	0.000E+00
35	PROP.015	391139.00	3872908.00	2820.00	0	0.00000	0.000E+00
36	PROP.016	391374.00	3872915.00	2820.00	0	0.00000	0.000E+00
37	PROP.017	391609.00	3872921.00	2810.00	0	0.00000	0.000E+00
38	PROP.018	391844.00	3872928.00	2790.00	0	0.00000	0.000E+00
39	PROP.019	391844.00	3872735.00	2850.00	0	0.00000	0.000E+00
40	PROP.020	391845.00	3872543.00	2900.00	0	0.00000	0.000E+00
41	PROP.021	391845.00	3872351.00	3000.00	0	0.00000	0.000E+00
42	PROP.022	391846.00	3872159.00	3175.00	0	0.00000	0.000E+00

43	PROP.023	392046.00	3872165.00	3100.00	0	0.00000	0.000E+00
44	PROP.024	392246.00	3872172.00	2975.00	0	0.00000	0.000E+00
45	PROP.025	392446.00	3872178.00	2825.00	0	0.00000	0.000E+00
46	PROP.026	392647.00	3872185.00	2860.00	0	0.00000	0.000E+00
47	PROP.027	392658.00	3871975.00	3090.00	0	0.00000	0.000E+00
48	PROP.028	392670.00	3871765.00	2900.00	0	0.00000	0.000E+00
49	PROP.029	392682.00	3871555.00	2925.00	0	0.00000	0.000E+00
50	PROP.030	392694.00	3871346.00	2950.00	0	0.00000	0.000E+00
51	PROP.031	392887.00	3871350.00	3000.00	0	0.00000	0.000E+00
52	PROP.032	393080.00	3871355.00	2950.00	0	0.00000	0.000E+00
53	PROP.033	393273.00	3871360.00	2875.00	0	0.00000	0.000E+00
54	PROP.034	393467.00	3871365.00	3025.00	0	0.00000	0.000E+00
55	PROP.035	393467.00	3871139.00	3000.00	0	0.00000	0.000E+00
56	PROP.036	393467.00	3870914.00	3000.00	0	0.00000	0.000E+00
57	PROP.037	393467.00	3870689.00	2760.00	0	0.00000	0.000E+00
58	PROP.038	393252.00	3870689.00	2830.00	0	0.00000	0.000E+00
59	PROP.039	393037.00	3870689.00	3020.00	0	0.00000	0.000E+00
60	PROP.040	392822.00	3870689.00	3110.00	0	0.00000	0.000E+00
61	PROP.041	392607.00	3870689.00	3440.00	0	0.00000	0.000E+00
62	PROP.042	392392.00	3870689.00	3500.00	0	0.00000	0.000E+00
63	PROP.043	392178.00	3870689.00	3120.00	0	0.00000	0.000E+00
64	PROP.044	392178.00	3870521.00	3020.00	0	0.00000	0.000E+00
65	PROP.045	392010.00	3870521.00	3180.00	0	0.00000	0.000E+00
66	PROP.046	391842.00	3870521.00	3120.00	0	0.00000	0.000E+00
67	PROP.047	391643.00	3870520.00	3060.00	0	0.00000	0.000E+00
68	PROP.048	391445.00	3870519.00	3030.00	0	0.00000	0.000E+00
69	PROP.049	391247.00	3870518.00	3180.00	0	0.00000	0.000E+00
70	PROP.050	391049.00	3870518.00	3120.00	0	0.00000	0.000E+00
71	PROP.051	391044.00	3870310.00	3300.00	0	0.00000	0.000E+00
72	PROP.052	391040.00	3870103.00	3140.00	0	0.00000	0.000E+00
73	PROP.053	391036.00	3869895.00	2980.00	0	0.00000	0.000E+00
74	PROP.054	391032.00	3869688.00	3120.00	0	0.00000	0.000E+00
75	PROP.055	390827.00	3869681.00	3000.00	0	0.00000	0.000E+00
76	PROP.056	390623.00	3869674.00	2920.00	0	0.00000	0.000E+00
77	PROP.057	390419.00	3869667.00	2910.00	0	0.00000	0.000E+00
78	PROP.058	390215.00	3869661.00	3000.00	0	0.00000	0.000E+00
79	PROP.059	390214.00	3869865.00	3020.00	0	0.00000	0.000E+00
80	PROP.060	390213.00	3870070.00	2930.00	0	0.00000	0.000E+00
81	PROP.061	390212.00	3870275.00	2920.00	0	0.00000	0.000E+00
82	PROP.062	390212.00	3870480.00	2880.00	0	0.00000	0.000E+00
83	PROP.063	390211.00	3870677.00	2870.00	0	0.00000	0.000E+00
84	PROP.064	390210.00	3870875.00	2860.00	0	0.00000	0.000E+00
85	PROP.065	390209.00	3871072.00	2860.00	0	0.00000	0.000E+00
86	PROP.066	390209.00	3871270.00	2870.00	0	0.00000	0.000E+00
87	PROP.067	390039.00	3871272.00	2840.00	0	0.00000	0.000E+00
88	PROP.068	389869.00	3871274.00	2840.00	0	0.00000	0.000E+00
89	PROP.069	389700.00	3871276.00	2840.00	0	0.00000	0.000E+00
90	PROP.070	389725.00	3871473.00	2840.00	0	0.00000	0.000E+00
91	100.0001	391600.00	3870100.00	2840.00	0	0.00000	0.000E+00
92	100.0002	391700.00	3870100.00	2840.00	0	0.00000	0.000E+00
93	100.0003	391800.00	3870100.00	2850.00	0	0.00000	0.000E+00
94	100.0004	391900.00	3870100.00	2900.00	0	0.00000	0.000E+00
95	100.0005	392000.00	3870100.00	2900.00	0	0.00000	0.000E+00
96	100.0006	392100.00	3870100.00	2870.00	0	0.00000	0.000E+00
97	100.0007	392200.00	3870100.00	2900.00	0	0.00000	0.000E+00
98	100.0008	392300.00	3870100.00	2790.00	0	0.00000	0.000E+00
99	100.0009	392400.00	3870100.00	2900.00	0	0.00000	0.000E+00
100	100.0010	392500.00	3870100.00	2880.00	0	0.00000	0.000E+00
101	100.0011	392600.00	3870100.00	2960.00	0	0.00000	0.000E+00
102	100.0012	392700.00	3870100.00	3070.00	0	0.00000	0.000E+00
103	100.0013	391600.00	3870200.00	2860.00	0	0.00000	0.000E+00
104	100.0014	391700.00	3870200.00	2880.00	0	0.00000	0.000E+00
105	100.0015	391800.00	3870200.00	2890.00	0	0.00000	0.000E+00
106	100.0016	391900.00	3870200.00	2930.00	0	0.00000	0.000E+00
107	100.0017	392000.00	3870200.00	2920.00	0	0.00000	0.000E+00
108	100.0018	392100.00	3870200.00	2910.00	0	0.00000	0.000E+00
109	100.0019	392200.00	3870200.00	2920.00	0	0.00000	0.000E+00
110	100.0020	392300.00	3870200.00	2940.00	0	0.00000	0.000E+00
111	100.0021	392400.00	3870200.00	2930.00	0	0.00000	0.000E+00
112	100.0022	392500.00	3870200.00	2950.00	0	0.00000	0.000E+00
113	100.0023	392600.00	3870200.00	2970.00	0	0.00000	0.000E+00
114	100.0024	392700.00	3870200.00	3120.00	0	0.00000	0.000E+00
115	100.0025	391600.00	3870300.00	2900.00	0	0.00000	0.000E+00
116	100.0026	391700.00	3870300.00	2920.00	0	0.00000	0.000E+00
117	100.0027	391800.00	3870300.00	2930.00	0	0.00000	0.000E+00
118	100.0028	391900.00	3870300.00	2960.00	0	0.00000	0.000E+00
119	100.0029	392000.00	3870300.00	3000.00	0	0.00000	0.000E+00
120	100.0030	392100.00	3870300.00	2960.00	0	0.00000	0.000E+00
121	100.0031	392200.00	3870300.00	2940.00	0	0.00000	0.000E+00
122	100.0032	392300.00	3870300.00	2980.00	0	0.00000	0.000E+00
123	100.0033	392400.00	3870300.00	2980.00	0	0.00000	0.000E+00
124	100.0034	392500.00	3870300.00	3020.00	0	0.00000	0.000E+00
125	100.0035	392600.00	3870300.00	3140.00	0	0.00000	0.000E+00
126	100.0036	392700.00	3870300.00	3170.00	0	0.00000	0.000E+00
127	100.0037	391600.00	3870400.00	2940.00	0	0.00000	0.000E+00
128	100.0038	391700.00	3870400.00	2950.00	0	0.00000	0.000E+00
129	100.0039	391800.00	3870400.00	2980.00	0	0.00000	0.000E+00
130	100.0040	391900.00	3870400.00	3060.00	0	0.00000	0.000E+00
131	100.0041	392000.00	3870400.00	3140.00	0	0.00000	0.000E+00
132	100.0042	392100.00	3870400.00	3020.00	0	0.00000	0.000E+00
133	100.0043	392200.00	3870400.00	2980.00	0	0.00000	0.000E+00
134	100.0044	392300.00	3870400.00	3040.00	0	0.00000	0.000E+00
135	100.0045	392400.00	3870400.00	3110.00	0	0.00000	0.000E+00
136	100.0046	392500.00	3870400.00	3280.00	0	0.00000	0.000E+00
137	100.0047	392600.00	3870400.00	3250.00	0	0.00000	0.000E+00
138	100.0048	392700.00	3870400.00	3260.00	0	0.00000	0.000E+00
139	100.0049	391600.00	3870500.00	3020.00	0	0.00000	0.000E+00

140	100.0050	391700.00	3870500.00	3040.00	0	0.00000	0.000E+00
141	100.0051	391800.00	3870500.00	3060.00	0	0.00000	0.000E+00
142	100.0052	391900.00	3870500.00	3200.00	0	0.00000	0.000E+00
143	100.0053	392000.00	3870500.00	3200.00	0	0.00000	0.000E+00
144	100.0054	392100.00	3870500.00	3060.00	0	0.00000	0.000E+00
145	100.0055	392200.00	3870500.00	3040.00	0	0.00000	0.000E+00
146	100.0056	392300.00	3870500.00	3140.00	0	0.00000	0.000E+00
147	100.0057	392400.00	3870500.00	3240.00	0	0.00000	0.000E+00
148	100.0058	392500.00	3870500.00	3320.00	0	0.00000	0.000E+00
149	100.0059	392600.00	3870500.00	3400.00	0	0.00000	0.000E+00
150	100.0060	392700.00	3870500.00	3400.00	0	0.00000	0.000E+00
151	100.0061	392200.00	3870600.00	3110.00	0	0.00000	0.000E+00
152	100.0062	392300.00	3870600.00	3280.00	0	0.00000	0.000E+00
153	100.0063	392400.00	3870600.00	3430.00	0	0.00000	0.000E+00
154	100.0064	392500.00	3870600.00	3130.00	0	0.00000	0.000E+00
155	100.0065	392600.00	3870600.00	3520.00	0	0.00000	0.000E+00
156	100.0066	392700.00	3870600.00	3390.00	0	0.00000	0.000E+00
157	250.0001	391000.00	3869500.00	3070.00	0	0.00000	0.000E+00
158	250.0002	391250.00	3869500.00	3140.00	0	0.00000	0.000E+00
159	250.0003	391500.00	3869500.00	2880.00	0	0.00000	0.000E+00
160	250.0004	391750.00	3869500.00	2730.00	0	0.00000	0.000E+00
161	250.0005	392000.00	3869500.00	2710.00	0	0.00000	0.000E+00
162	250.0006	392250.00	3869500.00	2700.00	0	0.00000	0.000E+00
163	250.0007	392500.00	3869500.00	2690.00	0	0.00000	0.000E+00
164	250.0008	392750.00	3869500.00	2660.00	0	0.00000	0.000E+00
165	250.0009	393000.00	3869500.00	2670.00	0	0.00000	0.000E+00
166	250.0010	393250.00	3869500.00	2650.00	0	0.00000	0.000E+00
167	250.0011	393500.00	3869500.00	2610.00	0	0.00000	0.000E+00
168	250.0012	391250.00	3869750.00	2890.00	0	0.00000	0.000E+00
169	250.0013	391500.00	3869750.00	2790.00	0	0.00000	0.000E+00
170	250.0014	391750.00	3869750.00	2760.00	0	0.00000	0.000E+00
171	250.0015	392000.00	3869750.00	2770.00	0	0.00000	0.000E+00
172	250.0016	392250.00	3869750.00	2760.00	0	0.00000	0.000E+00
173	250.0017	392500.00	3869750.00	2760.00	0	0.00000	0.000E+00
174	250.0018	392750.00	3869750.00	2800.00	0	0.00000	0.000E+00
175	250.0019	393000.00	3869750.00	2840.00	0	0.00000	0.000E+00
176	250.0020	393250.00	3869750.00	2720.00	0	0.00000	0.000E+00
177	250.0021	393500.00	3869750.00	2700.00	0	0.00000	0.000E+00
178	250.0022	391250.00	3870000.00	3010.00	0	0.00000	0.000E+00
179	250.0023	391500.00	3870000.00	2880.00	0	0.00000	0.000E+00
180	250.0024	391750.00	3870000.00	2810.00	0	0.00000	0.000E+00
181	250.0025	392000.00	3870000.00	2860.00	0	0.00000	0.000E+00
182	250.0026	392250.00	3870000.00	2940.00	0	0.00000	0.000E+00
183	250.0027	392500.00	3870000.00	2850.00	0	0.00000	0.000E+00
184	250.0028	392750.00	3870000.00	3040.00	0	0.00000	0.000E+00
185	250.0029	393000.00	3870000.00	2980.00	0	0.00000	0.000E+00
186	250.0030	393250.00	3870000.00	2860.00	0	0.00000	0.000E+00
187	250.0031	393500.00	3870000.00	2760.00	0	0.00000	0.000E+00
188	250.0032	391250.00	3870250.00	3140.00	0	0.00000	0.000E+00
189	250.0033	391500.00	3870250.00	2910.00	0	0.00000	0.000E+00
190	250.0034	391750.00	3870250.00	2910.00	0	0.00000	0.000E+00
191	250.0035	392000.00	3870250.00	2960.00	0	0.00000	0.000E+00
192	250.0036	392250.00	3870250.00	2940.00	0	0.00000	0.000E+00
193	250.0037	392500.00	3870250.00	2990.00	0	0.00000	0.000E+00
194	250.0038	392750.00	3870250.00	3180.00	0	0.00000	0.000E+00
195	250.0039	393000.00	3870250.00	2980.00	0	0.00000	0.000E+00
196	250.0040	393250.00	3870250.00	3000.00	0	0.00000	0.000E+00
197	250.0041	393500.00	3870250.00	2840.00	0	0.00000	0.000E+00
198	250.0042	391250.00	3870500.00	3160.00	0	0.00000	0.000E+00
199	250.0043	391500.00	3870500.00	3000.00	0	0.00000	0.000E+00
200	250.0044	391750.00	3870500.00	3040.00	0	0.00000	0.000E+00
201	250.0045	392250.00	3870500.00	3100.00	0	0.00000	0.000E+00
202	250.0046	392750.00	3870500.00	3380.00	0	0.00000	0.000E+00
203	250.0047	393000.00	3870500.00	3100.00	0	0.00000	0.000E+00
204	250.0048	393250.00	3870500.00	2880.00	0	0.00000	0.000E+00
205	250.0049	393500.00	3870500.00	2820.00	0	0.00000	0.000E+00
206	250.0050	393500.00	3870750.00	2840.00	0	0.00000	0.000E+00
207	250.0051	393500.00	3871000.00	3050.00	0	0.00000	0.000E+00
208	500.0001	386000.00	3867500.00	2840.00	0	0.00000	0.000E+00
209	500.0002	386500.00	3867500.00	2840.00	0	0.00000	0.000E+00
210	500.0003	387000.00	3867500.00	2830.00	0	0.00000	0.000E+00
211	500.0004	387500.00	3867500.00	2810.00	0	0.00000	0.000E+00
212	500.0005	388000.00	3867500.00	2800.00	0	0.00000	0.000E+00
213	500.0006	388500.00	3867500.00	2790.00	0	0.00000	0.000E+00
214	500.0007	389000.00	3867500.00	2770.00	0	0.00000	0.000E+00
215	500.0008	389500.00	3867500.00	2750.00	0	0.00000	0.000E+00
216	500.0009	390000.00	3867500.00	2740.00	0	0.00000	0.000E+00
217	500.0010	390500.00	3867500.00	2730.00	0	0.00000	0.000E+00
218	500.0011	391000.00	3867500.00	2710.00	0	0.00000	0.000E+00
219	500.0012	391500.00	3867500.00	2690.00	0	0.00000	0.000E+00
220	500.0013	392000.00	3867500.00	2670.00	0	0.00000	0.000E+00
221	500.0014	392500.00	3867500.00	2650.00	0	0.00000	0.000E+00
222	500.0015	393000.00	3867500.00	2630.00	0	0.00000	0.000E+00
223	500.0016	393500.00	3867500.00	2600.00	0	0.00000	0.000E+00
224	500.0017	394000.00	3867500.00	2590.00	0	0.00000	0.000E+00
225	500.0018	394500.00	3867500.00	2580.00	0	0.00000	0.000E+00
226	500.0019	395000.00	3867500.00	2560.00	0	0.00000	0.000E+00
227	500.0020	386000.00	3868000.00	2860.00	0	0.00000	0.000E+00
228	500.0021	386500.00	3868000.00	2860.00	0	0.00000	0.000E+00
229	500.0022	387000.00	3868000.00	2860.00	0	0.00000	0.000E+00
230	500.0023	387500.00	3868000.00	2840.00	0	0.00000	0.000E+00
231	500.0024	388000.00	3868000.00	2820.00	0	0.00000	0.000E+00
232	500.0025	388500.00	3868000.00	2800.00	0	0.00000	0.000E+00
233	500.0026	389000.00	3868000.00	2780.00	0	0.00000	0.000E+00
234	500.0027	389500.00	3868000.00	2770.00	0	0.00000	0.000E+00
235	500.0028	390000.00	3868000.00	2750.00	0	0.00000	0.000E+00
236	500.0029	390500.00	3868000.00	2740.00	0	0.00000	0.000E+00

237	500.0030	391000.00	3868000.00	2720.00	0	0.00000	0.000E+00
238	500.0031	391500.00	3868000.00	2700.00	0	0.00000	0.000E+00
239	500.0032	392000.00	3868000.00	2680.00	0	0.00000	0.000E+00
240	500.0033	392500.00	3868000.00	2660.00	0	0.00000	0.000E+00
241	500.0034	393000.00	3868000.00	2630.00	0	0.00000	0.000E+00
242	500.0035	393500.00	3868000.00	2610.00	0	0.00000	0.000E+00
243	500.0036	394000.00	3868000.00	2590.00	0	0.00000	0.000E+00
244	500.0037	394500.00	3868000.00	2580.00	0	0.00000	0.000E+00
245	500.0038	395000.00	3868000.00	2560.00	0	0.00000	0.000E+00
246	500.0039	386000.00	3868500.00	2880.00	0	0.00000	0.000E+00
247	500.0040	386500.00	3868500.00	2880.00	0	0.00000	0.000E+00
248	500.0041	387000.00	3868500.00	2870.00	0	0.00000	0.000E+00
249	500.0042	387500.00	3868500.00	2860.00	0	0.00000	0.000E+00
250	500.0043	388000.00	3868500.00	2850.00	0	0.00000	0.000E+00
251	500.0044	388500.00	3868500.00	2820.00	0	0.00000	0.000E+00
252	500.0045	389000.00	3868500.00	2800.00	0	0.00000	0.000E+00
253	500.0046	389500.00	3868500.00	2780.00	0	0.00000	0.000E+00
254	500.0047	390000.00	3868500.00	2770.00	0	0.00000	0.000E+00
255	500.0048	390500.00	3868500.00	2740.00	0	0.00000	0.000E+00
256	500.0049	391000.00	3868500.00	2730.00	0	0.00000	0.000E+00
257	500.0050	391500.00	3868500.00	2710.00	0	0.00000	0.000E+00
258	500.0051	392000.00	3868500.00	2680.00	0	0.00000	0.000E+00
259	500.0052	392500.00	3868500.00	2660.00	0	0.00000	0.000E+00
260	500.0053	393000.00	3868500.00	2620.00	0	0.00000	0.000E+00
261	500.0054	393500.00	3868500.00	2600.00	0	0.00000	0.000E+00
262	500.0055	394000.00	3868500.00	2590.00	0	0.00000	0.000E+00
263	500.0056	394500.00	3868500.00	2580.00	0	0.00000	0.000E+00
264	500.0057	395000.00	3868500.00	2565.00	0	0.00000	0.000E+00
265	500.0058	386000.00	3869000.00	2910.00	0	0.00000	0.000E+00
266	500.0059	386500.00	3869000.00	2900.00	0	0.00000	0.000E+00
267	500.0060	387000.00	3869000.00	2890.00	0	0.00000	0.000E+00
268	500.0061	387500.00	3869000.00	2880.00	0	0.00000	0.000E+00
269	500.0062	388000.00	3869000.00	2865.00	0	0.00000	0.000E+00
270	500.0063	388500.00	3869000.00	2840.00	0	0.00000	0.000E+00
271	500.0064	389000.00	3869000.00	2820.00	0	0.00000	0.000E+00
272	500.0065	389500.00	3869000.00	2800.00	0	0.00000	0.000E+00
273	500.0066	390000.00	3869000.00	2820.00	0	0.00000	0.000E+00
274	500.0067	390500.00	3869000.00	2960.00	0	0.00000	0.000E+00
275	500.0068	391000.00	3869000.00	2880.00	0	0.00000	0.000E+00
276	500.0069	391500.00	3869000.00	2720.00	0	0.00000	0.000E+00
277	500.0070	392000.00	3869000.00	2680.00	0	0.00000	0.000E+00
278	500.0071	392500.00	3869000.00	2650.00	0	0.00000	0.000E+00
279	500.0072	393000.00	3869000.00	2620.00	0	0.00000	0.000E+00
280	500.0073	393500.00	3869000.00	2600.00	0	0.00000	0.000E+00
281	500.0074	394000.00	3869000.00	2590.00	0	0.00000	0.000E+00
282	500.0075	394500.00	3869000.00	2580.00	0	0.00000	0.000E+00
283	500.0076	395000.00	3869000.00	2570.00	0	0.00000	0.000E+00
284	500.0077	386000.00	3869500.00	2920.00	0	0.00000	0.000E+00
285	500.0078	386500.00	3869500.00	2920.00	0	0.00000	0.000E+00
286	500.0079	387000.00	3869500.00	2910.00	0	0.00000	0.000E+00
287	500.0080	387500.00	3869500.00	2890.00	0	0.00000	0.000E+00
288	500.0081	388000.00	3869500.00	2880.00	0	0.00000	0.000E+00
289	500.0082	388500.00	3869500.00	2860.00	0	0.00000	0.000E+00
290	500.0083	389000.00	3869500.00	2840.00	0	0.00000	0.000E+00
291	500.0084	389500.00	3869500.00	2800.00	0	0.00000	0.000E+00
292	500.0085	390000.00	3869500.00	3340.00	0	0.00000	0.000E+00
293	500.0086	390500.00	3869500.00	2850.00	0	0.00000	0.000E+00
294	500.0087	394000.00	3869500.00	2590.00	0	0.00000	0.000E+00
295	500.0088	394500.00	3869500.00	2580.00	0	0.00000	0.000E+00
296	500.0089	395000.00	3869500.00	2570.00	0	0.00000	0.000E+00
297	500.0090	386000.00	3870000.00	2940.00	0	0.00000	0.000E+00
298	500.0091	386500.00	3870000.00	2940.00	0	0.00000	0.000E+00
299	500.0092	387000.00	3870000.00	2930.00	0	0.00000	0.000E+00
300	500.0093	387500.00	3870000.00	2900.00	0	0.00000	0.000E+00
301	500.0094	388000.00	3870000.00	2880.00	0	0.00000	0.000E+00
302	500.0095	388500.00	3870000.00	2860.00	0	0.00000	0.000E+00
303	500.0096	389000.00	3870000.00	2840.00	0	0.00000	0.000E+00
304	500.0097	389500.00	3870000.00	2820.00	0	0.00000	0.000E+00
305	500.0098	390000.00	3870000.00	2900.00	0	0.00000	0.000E+00
306	500.0099	394000.00	3870000.00	2600.00	0	0.00000	0.000E+00
307	500.0100	394500.00	3870000.00	2590.00	0	0.00000	0.000E+00
308	500.0101	395000.00	3870000.00	2570.00	0	0.00000	0.000E+00
309	500.0102	386000.00	3870500.00	2970.00	0	0.00000	0.000E+00
310	500.0103	386500.00	3870500.00	2960.00	0	0.00000	0.000E+00
311	500.0104	387000.00	3870500.00	2950.00	0	0.00000	0.000E+00
312	500.0105	387500.00	3870500.00	2910.00	0	0.00000	0.000E+00
313	500.0106	388000.00	3870500.00	2880.00	0	0.00000	0.000E+00
314	500.0107	388500.00	3870500.00	2860.00	0	0.00000	0.000E+00
315	500.0108	389000.00	3870500.00	2840.00	0	0.00000	0.000E+00
316	500.0109	389500.00	3870500.00	2820.00	0	0.00000	0.000E+00
317	500.0110	390000.00	3870500.00	2850.00	0	0.00000	0.000E+00
318	500.0111	394000.00	3870500.00	2720.00	0	0.00000	0.000E+00
319	500.0112	394500.00	3870500.00	2670.00	0	0.00000	0.000E+00
320	500.0113	395000.00	3870500.00	2590.00	0	0.00000	0.000E+00
321	500.0114	386000.00	3871000.00	2990.00	0	0.00000	0.000E+00
322	500.0115	386500.00	3871000.00	2970.00	0	0.00000	0.000E+00
323	500.0116	387000.00	3871000.00	2940.00	0	0.00000	0.000E+00
324	500.0117	387500.00	3871000.00	2910.00	0	0.00000	0.000E+00
325	500.0118	388000.00	3871000.00	2890.00	0	0.00000	0.000E+00
326	500.0119	388500.00	3871000.00	2870.00	0	0.00000	0.000E+00
327	500.0120	389000.00	3871000.00	2820.00	0	0.00000	0.000E+00
328	500.0121	389500.00	3871000.00	2840.00	0	0.00000	0.000E+00
329	500.0122	390000.00	3871000.00	2840.00	0	0.00000	0.000E+00
330	500.0123	394000.00	3871000.00	2640.00	0	0.00000	0.000E+00
331	500.0124	394500.00	3871000.00	2605.00	0	0.00000	0.000E+00
332	500.0125	395000.00	3871000.00	2590.00	0	0.00000	0.000E+00
333	500.0126	386000.00	3871500.00	3000.00	0	0.00000	0.000E+00

334	500.0127	386500.00	3871500.00	2980.00	0	0.00000	0.000E+00
335	500.0128	387000.00	3871500.00	2960.00	0	0.00000	0.000E+00
336	500.0129	387500.00	3871500.00	2930.00	0	0.00000	0.000E+00
337	500.0130	388000.00	3871500.00	2910.00	0	0.00000	0.000E+00
338	500.0131	388500.00	3871500.00	2880.00	0	0.00000	0.000E+00
339	500.0132	389000.00	3871500.00	2860.00	0	0.00000	0.000E+00
340	500.0133	389500.00	3871500.00	2840.00	0	0.00000	0.000E+00
341	500.0134	393000.00	3871500.00	2940.00	0	0.00000	0.000E+00
342	500.0135	393500.00	3871500.00	2740.00	0	0.00000	0.000E+00
343	500.0136	394000.00	3871500.00	2640.00	0	0.00000	0.000E+00
344	500.0137	394500.00	3871500.00	2610.00	0	0.00000	0.000E+00
345	500.0138	395000.00	3871500.00	2600.00	0	0.00000	0.000E+00
346	500.0139	386000.00	3872000.00	3020.00	0	0.00000	0.000E+00
347	500.0140	386500.00	3872000.00	3000.00	0	0.00000	0.000E+00
348	500.0141	387000.00	3872000.00	2970.00	0	0.00000	0.000E+00
349	500.0142	387500.00	3872000.00	2940.00	0	0.00000	0.000E+00
350	500.0143	388000.00	3872000.00	2920.00	0	0.00000	0.000E+00
351	500.0144	388500.00	3872000.00	2900.00	0	0.00000	0.000E+00
352	500.0145	389000.00	3872000.00	2880.00	0	0.00000	0.000E+00
353	500.0146	389500.00	3872000.00	2860.00	0	0.00000	0.000E+00
354	500.0147	393000.00	3872000.00	2760.00	0	0.00000	0.000E+00
355	500.0148	393500.00	3872000.00	2690.00	0	0.00000	0.000E+00
356	500.0149	394000.00	3872000.00	2650.00	0	0.00000	0.000E+00
357	500.0150	394500.00	3872000.00	2630.00	0	0.00000	0.000E+00
358	500.0151	395000.00	3872000.00	2610.00	0	0.00000	0.000E+00
359	500.0152	386000.00	3872500.00	3040.00	0	0.00000	0.000E+00
360	500.0153	386500.00	3872500.00	3020.00	0	0.00000	0.000E+00
361	500.0154	387000.00	3872500.00	2990.00	0	0.00000	0.000E+00
362	500.0155	387500.00	3872500.00	2960.00	0	0.00000	0.000E+00
363	500.0156	388000.00	3872500.00	2940.00	0	0.00000	0.000E+00
364	500.0157	388500.00	3872500.00	2910.00	0	0.00000	0.000E+00
365	500.0158	389000.00	3872500.00	2880.00	0	0.00000	0.000E+00
366	500.0159	389500.00	3872500.00	2860.00	0	0.00000	0.000E+00
367	500.0160	390000.00	3872500.00	2870.00	0	0.00000	0.000E+00
368	500.0161	392000.00	3872500.00	2920.00	0	0.00000	0.000E+00
369	500.0162	392500.00	3872500.00	2810.00	0	0.00000	0.000E+00
370	500.0163	393000.00	3872500.00	2720.00	0	0.00000	0.000E+00
371	500.0164	393500.00	3872500.00	2680.00	0	0.00000	0.000E+00
372	500.0165	394000.00	3872500.00	2660.00	0	0.00000	0.000E+00
373	500.0166	394500.00	3872500.00	2640.00	0	0.00000	0.000E+00
374	500.0167	395000.00	3872500.00	2610.00	0	0.00000	0.000E+00
375	500.0168	386000.00	3873000.00	3060.00	0	0.00000	0.000E+00
376	500.0169	386500.00	3873000.00	3040.00	0	0.00000	0.000E+00
377	500.0170	387000.00	3873000.00	3010.00	0	0.00000	0.000E+00
378	500.0171	387500.00	3873000.00	2980.00	0	0.00000	0.000E+00
379	500.0172	388000.00	3873000.00	2950.00	0	0.00000	0.000E+00
380	500.0173	388500.00	3873000.00	2920.00	0	0.00000	0.000E+00
381	500.0174	389000.00	3873000.00	2900.00	0	0.00000	0.000E+00
382	500.0175	389500.00	3873000.00	2870.00	0	0.00000	0.000E+00
383	500.0176	390000.00	3873000.00	2845.00	0	0.00000	0.000E+00
384	500.0177	390500.00	3873000.00	2820.00	0	0.00000	0.000E+00
385	500.0178	391000.00	3873000.00	2810.00	0	0.00000	0.000E+00
386	500.0179	391500.00	3873000.00	2800.00	0	0.00000	0.000E+00
387	500.0180	392000.00	3873000.00	2760.00	0	0.00000	0.000E+00
388	500.0181	392500.00	3873000.00	2740.00	0	0.00000	0.000E+00
389	500.0182	393000.00	3873000.00	2710.00	0	0.00000	0.000E+00
390	500.0183	393500.00	3873000.00	2680.00	0	0.00000	0.000E+00
391	500.0184	394000.00	3873000.00	2660.00	0	0.00000	0.000E+00
392	500.0185	394500.00	3873000.00	2640.00	0	0.00000	0.000E+00
393	500.0186	395000.00	3873000.00	2620.00	0	0.00000	0.000E+00
394	500.0187	386000.00	3873500.00	3080.00	0	0.00000	0.000E+00
395	500.0188	386500.00	3873500.00	3050.00	0	0.00000	0.000E+00
396	500.0189	387000.00	3873500.00	3020.00	0	0.00000	0.000E+00
397	500.0190	387500.00	3873500.00	2990.00	0	0.00000	0.000E+00
398	500.0191	388000.00	3873500.00	2960.00	0	0.00000	0.000E+00
399	500.0192	388500.00	3873500.00	2930.00	0	0.00000	0.000E+00
400	500.0193	389000.00	3873500.00	2900.00	0	0.00000	0.000E+00
401	500.0194	389500.00	3873500.00	2880.00	0	0.00000	0.000E+00
402	500.0195	390000.00	3873500.00	2850.00	0	0.00000	0.000E+00
403	500.0196	390500.00	3873500.00	2830.00	0	0.00000	0.000E+00
404	500.0197	391000.00	3873500.00	2800.00	0	0.00000	0.000E+00
405	500.0198	391500.00	3873500.00	2780.00	0	0.00000	0.000E+00
406	500.0199	392000.00	3873500.00	2750.00	0	0.00000	0.000E+00
407	500.0200	392500.00	3873500.00	2760.00	0	0.00000	0.000E+00
408	500.0201	393000.00	3873500.00	2720.00	0	0.00000	0.000E+00
409	500.0202	393500.00	3873500.00	2680.00	0	0.00000	0.000E+00
410	500.0203	394000.00	3873500.00	2700.00	0	0.00000	0.000E+00
411	500.0204	394500.00	3873500.00	2640.00	0	0.00000	0.000E+00
412	500.0205	395000.00	3873500.00	2620.00	0	0.00000	0.000E+00
413	500.0206	388000.00	3874000.00	2980.00	0	0.00000	0.000E+00
414	500.0207	388000.00	3874500.00	2980.00	0	0.00000	0.000E+00
415	500.0208	388000.00	3875000.00	2990.00	0	0.00000	0.000E+00
416	500.0209	388500.00	3874000.00	2940.00	0	0.00000	0.000E+00
417	500.0210	388500.00	3874500.00	2950.00	0	0.00000	0.000E+00
418	500.0211	388500.00	3875000.00	2960.00	0	0.00000	0.000E+00
419	500.0212	389000.00	3874000.00	2910.00	0	0.00000	0.000E+00
420	500.0213	389000.00	3874500.00	2920.00	0	0.00000	0.000E+00
421	500.0214	389000.00	3875000.00	2920.00	0	0.00000	0.000E+00
422	500.0215	389500.00	3874000.00	2880.00	0	0.00000	0.000E+00
423	500.0216	389500.00	3874500.00	2890.00	0	0.00000	0.000E+00
424	500.0217	389500.00	3875000.00	2900.00	0	0.00000	0.000E+00
425	500.0218	390000.00	3874000.00	2860.00	0	0.00000	0.000E+00
426	500.0219	390000.00	3874500.00	2860.00	0	0.00000	0.000E+00
427	500.0220	390000.00	3875000.00	2865.00	0	0.00000	0.000E+00
428	500.0221	390500.00	3874000.00	2830.00	0	0.00000	0.000E+00
429	500.0222	390500.00	3874500.00	2840.00	0	0.00000	0.000E+00
430	500.0223	390500.00	3875000.00	2840.00	0	0.00000	0.000E+00

431	500.0224	391000.00	3874000.00	2800.00	0	0.00000	0.000E+00
432	500.0225	391000.00	3874500.00	2810.00	0	0.00000	0.000E+00
433	500.0226	391000.00	3875000.00	2810.00	0	0.00000	0.000E+00
434	500.0227	391500.00	3874000.00	2780.00	0	0.00000	0.000E+00
435	500.0228	391500.00	3874500.00	2780.00	0	0.00000	0.000E+00
436	500.0229	391500.00	3875000.00	2780.00	0	0.00000	0.000E+00
437	500.0230	392000.00	3874000.00	2770.00	0	0.00000	0.000E+00
438	500.0231	392000.00	3874500.00	2760.00	0	0.00000	0.000E+00
439	500.0232	392000.00	3875000.00	2760.00	0	0.00000	0.000E+00
440	500.0233	392500.00	3874000.00	2760.00	0	0.00000	0.000E+00
441	500.0234	392500.00	3874500.00	2780.00	0	0.00000	0.000E+00
442	500.0235	392500.00	3875000.00	2740.00	0	0.00000	0.000E+00
443	500.0236	393000.00	3874000.00	2900.00	0	0.00000	0.000E+00
444	500.0237	393000.00	3874500.00	2900.00	0	0.00000	0.000E+00
445	500.0238	393000.00	3875000.00	2730.00	0	0.00000	0.000E+00
446	500.0239	393500.00	3874000.00	2800.00	0	0.00000	0.000E+00
447	500.0240	393500.00	3874500.00	2700.00	0	0.00000	0.000E+00
448	500.0241	393500.00	3875000.00	2700.00	0	0.00000	0.000E+00
449	500.0242	394000.00	3874000.00	2650.00	0	0.00000	0.000E+00
450	500.0243	394000.00	3874500.00	2660.00	0	0.00000	0.000E+00
451	500.0244	394000.00	3875000.00	2680.00	0	0.00000	0.000E+00

*** PATHWAY-SPECIFIC DATA ***

*** RISK LEVELS ***

Significant risk level		1.00E-06	
Zone of impact risk level		1.00E-07	
Significant hazard index for acute exposure		0.50	
Significant hazard index for chronic exposure		0.50	

*** INHALATION PATHWAY ***

Respiration rate (RR) (m3/d)		20.0	
Average body weight (ABW) (kg)		70.0	

*** MULTIPATHWAY POLLUTANTS ***

Number of multipathway pollutants			27
Symbol and identification number	- Arsenic	As	10
	- Beryllium	Be	17
	- Cadmium	Cd	22
	- Chlorobenzene	CBZ	29
	- Chromium (hex.)	Cr	36
	- Dioxins/Dibenzofuran	TCDD	55
	- 2-Chlorophenol	CPHEZ	33
	- p-Dichlorobenzene	PDCB	48
	- Hexachlorobenzene	HCB	74
	- Hexachlorocyclohexan	HCHEX	75
	- Lead	Pb	83
	- Mercury	Hg	87
	- NNitrosodiethylamine	NNETH	101
	- NNitrosodimethylamin	NNMET	102
	- NNitrosodiphenylamin	PNPHE	105
	- NNitrosodinbutylamin	NNBUT	103
	- NNitrosodinpropylami	NNDPP	104
	- NNitromethyethylamin	NNMEL	106
	- NNitrosomorpholine	NNMPH	107
	- NNitrosopiperidine	NNPRD	108
	- NNitrosopyrrolidine	NNPLD	109
	- Naphthalene	NAPTH	110
	- PAH	PAH	130
	- Polychlor. biphenyls	PCB	129
	- Pentachlorophenol	PENTA	155
	- 2,4,6Trichlorophenol	TC246	147
	- 2,4,5Trichlorophenol	TC245	157

*** SOIL ***

Vertical rate of deposition (Dep_rate) (m/s)	- Arsenic	0.00
	- Beryllium	0.00
	- Cadmium	0.00
	- Chlorobenzene	0.00
	- Chromium (hex.)	0.00
	- Dioxins/Dibenzofuran	0.00
	- 2-Chlorophenol	0.00
	- p-Dichlorobenzene	0.00
	- Hexachlorobenzene	0.00
	- Hexachlorocyclohexan	0.00
	- Lead	0.00
	- Mercury	0.00
	- NNitrosodiethylamine	0.00
	- NNitrosodimethylamin	0.00
	- NNitrosodiphenylamin	0.00
	- NNitrosodinbutylamin	0.00
	- NNitrosodinpropylami	0.00
	- NNitromethyethylamin	0.00
	- NNitrosomorpholine	0.00
	- NNitrosopiperidine	0.00
	- NNitrosopyrrolidine	0.00
	- Naphthalene	0.00
	- PAH	0.00
	- Polychlor. biphenyls	0.00
	- Pentachlorophenol	0.00
	- 2,4,6Trichlorophenol	0.00
	- 2,4,5Trichlorophenol	0.00
Beginning of evaluation period (To) (d)		0.0
End of evaluation period (Tf) (d)		25550.0

Soil mixing depth for human ingestion (SD) (m)		0.0100
Soil bulk density (BD) (kg/m3)		1333.0
Chemical half-life in soil (t1/2)(d)	- Arsenic	1.00E+08
	- Beryllium	1.00E+08
	- Cadmium	1.00E+08
	- Chlorobenzene	1.50E+02
	- Chromium (hex.)	1.00E+08
	- Dioxins/Dibenzofuran	4.38E+03
	- 2-Chlorophenol	7.00E+01
	- p-Dichlorobenzene	1.80E+02
	- Hexachlorobenzene	2.09E+03
	- Hexachlorocyclohexan	1.70E+02
	- Lead	1.00E+08
	- Mercury	1.00E+08
	- NNitrosodiethylamine	1.80E+02
	- NNitrosodimethylamin	1.80E+02
	- NNitrosodiphenylamin	1.80E+02
	- NNitrosodinbutylamin	1.80E+02
	- NNitrosodinpropylami	1.80E+02
	- NNitromethyethylamin	1.80E+02
	- NNitrosomorpholine	1.80E+02
	- NNitrosopiperidine	1.80E+02
	- NNitrosopyrrolidine	1.80E+02
	- Naphthalene	4.80E+02
	- PAH	4.80E+02
	- Polychlor. biphenyls	3.60E+03
	- Pentachlorophenol	1.78E+02
	- 2,4,6Trichlorophenol	7.00E+01
	- 2,4,5Trichlorophenol	6.90E+02

*** WATER ***

Location (receptor #) of drinking water source	-1
Site-specific water surface area (SA) (m2)	-1.0
Site-specific water volume (WV) (kg)	-1.0
Site-specific number of volume changes per year (VC)	-1.0
Site-specific fraction of run-off water (ROf)	-1.0
Wash coefficient-fraction of material washed by runoff (WC)	-1.0
Site-specific watershed area impacted (WSIA) (m2)	-1.0
Site-specific average annual rainfall (RF) (m)	-1.0
Site-specific watershed run-off coefficient (ROC)	-1.0

*** VEGETATION ***

Location (receptor #) of crop source		0
Soil mixing depth (SD) for homegrown crops (m)		0.150
Interception coefficient for root crops (IFC_ROOT)		0.0
Interception coefficient for leafy crops (IFC_LEAFY)		0.20
Interception coefficient for vine crops (IFC_VINE)		0.10
Weathering constant (k) (1/d)		0.0495
Crop yield (Y) (kg/m2)		2.0
Crop growth period (T) (d)		90.0
Root uptake (UF2) - ROOT	- Arsenic	2.00E-03
	- Beryllium	4.00E-04
	- Cadmium	4.00E-02
	- Chlorobenzene	-1.0
	- Chromium (hex.)	1.00E-03
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	2.00E-03
	- Mercury	2.00E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Root uptake (UF2) - LEAF	- Arsenic	4.00E-03
	- Beryllium	1.00E-03
	- Cadmium	6.00E-02
	- Chlorobenzene	-1.0
	- Chromium (hex.)	8.00E-04
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	5.00E-03
	- Mercury	9.00E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0

	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Root uptake (UF2) - VINE	- Arsenic	9.00E-04
	- Beryllium	2.00E-04
	- Cadmium	2.00E-02
	- Chlorobenzene	-1.0
	- Chromium (hex.)	6.00E-04
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	1.00E-03
	- Mercury	3.00E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Octanol:water partition factor (Kow)	- Arsenic	-1.0
	- Beryllium	-1.0
	- Cadmium	-1.0
	- Chlorobenzene	-1.0
	- Chromium (hex.)	-1.0
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	-1.0
	- Mercury	-1.0
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Organic carbon partition coeff (Koc)	- Arsenic	-1.0
	- Beryllium	-1.0
	- Cadmium	-1.0
	- Chlorobenzene	-1.0
	- Chromium (hex.)	-1.0
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	-1.0
	- Mercury	-1.0
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Fraction of organic in soil (Foc)		0.10
*** ANIMAL PRODUCTS ***		
Location (receptor #) of animal farm		-1
Soil mixing depth (SD) for animal pasture (m)		0.010
Soil mixing depth (SD) for animal feed (m)		0.150
Inhalation rate (RR) (m3/d)	- Cattle/Lactating	8.00E+01
	- Pigs	7.00E+00
	- Poultry	1.00E+00
	- Goats/Sheep	6.00E+00
Water ingestion rate (WI) (kg/d)	- Cattle/Lactating	1.00E+02
	- Pigs	8.00E+00

	- Poultry	6.00E-01
	- Goats/Sheep	6.00E+00
Site-specific % water ingested from contaminated water (%SW)		0.25
Site-specific % diet provided by grazing (%G)		0.50
Site-specific % feed other than pasture locally grown (L)		1.00
Feed ingestion rate (FI) (kg/d)	- Cattle	8.00E+00
	- Lactating	1.60E+01
	- Pigs	2.00E+00
	- Poultry	3.00E-01
	- Goats/Sheep	2.00E+00
Soil ingested as % of feed ingested (%Sf)	- Cattle/Lactating	1.00E-02
	- Pigs	1.00E-02
	- Poultry	1.00E-02
	- Goats/Sheep	1.00E-02
Soil ingested as % of pasture ingested (%Sp)	- Cattle/Lactating	5.00E-02
	- Pigs	3.00E-02
	- Poultry	3.00E-02
	- Goats/Sheep	7.00E-02
Transfer coefficient of contaminant from diet to meat product (Fi_meat)	- Arsenic	2.00E-03
	- Beryllium	1.00E-03
	- Cadmium	3.50E-04
	- Chlorobenzene	-1.0
	- Chromium (hex.)	9.20E-03
	- Dioxins/Dibenzofuran	4.00E-01
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	4.00E-04
	- Mercury	2.70E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	5.00E-02
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	9.00E-05
	- 2,4,5Trichlorophenol	-1.0
Transfer coefficient of contaminant from diet to milk product (Fi_milk)	- Arsenic	6.20E-05
	- Beryllium	9.10E-07
	- Cadmium	1.00E-03
	- Chlorobenzene	-1.0
	- Chromium (hex.)	1.00E-05
	- Dioxins/Dibenzofuran	4.00E-02
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	2.60E-04
	- Mercury	9.70E-06
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	1.00E-02
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	4.20E-05
	- 2,4,5Trichlorophenol	-1.0
Transfer coefficient of contaminant from diet to egg product (Fi_egg)	- Arsenic	2.00E-03
	- Beryllium	1.00E-03
	- Cadmium	3.50E-04
	- Chlorobenzene	-1.0
	- Chromium (hex.)	9.20E-03
	- Dioxins/Dibenzofuran	4.00E-01
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	4.00E-04
	- Mercury	2.70E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	5.00E-02
	- Pentachlorophenol	-1.0

	- 2,4,6Trichlorophenol	9.00E-05
	- 2,4,5Trichlorophenol	-1.0
Location (receptor #) of animal's water source		-1
Site-specific water surface area (SA) (m2)		1000.0
Site-specific water volume (WV) (kg)		2.00E+06
Site-specific number of volume changes per year (VC)		5.0
Site-specific fraction of run-off water (ROf)		-1.0
Wash coefficient-fraction of material washed by runoff (WC)		-1.0
Site-specific watershed area impacted (WSIA) (m2)		-1.0
Site-specific average annual rainfall (RF) (m)		-1.0
Site-specific watershed run-off coefficient (ROC)		-1.0
*** FISH PRODUCTS ***		
Location (receptor #) of fish farm/pond/lake/stream		-1
Site-specific water surface area (SA) (m2)		1.50E+05
Site-specific water volume (WV) (kg)		3.00E+08
Site-specific number of volume changes per year (VC)		5000.0
Site-specific fraction of run-off water (ROf)		-1.0
Wash coefficient-fraction of material washed by runoff (WC)		-1.0
Site-specific watershed area impacted (WSIA) (m2)		-1.0
Site-specific average annual rainfall (RF) (m)		-1.0
Site-specific watershed run-off coefficient (ROC)		-1.0
Bioconcentration factor (BCF)	- Arsenic	4.00E+00
	- Beryllium	1.90E+01
	- Cadmium	1.00E+02
	- Chlorobenzene	-1.0
	- Chromium (hex.)	2.00E+00
	- Dioxins/Dibenzofuran	5.00E+03
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	8.00E+03
	- Hexachlorocyclohexan	-1.0
	- Lead	1.55E+02
	- Mercury	5.00E+03
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	1.55E+03
	- PAH	1.55E+03
	- Polychlor. biphenyls	1.00E+05
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	5.00E+02
	- 2,4,5Trichlorophenol	-1.0
*** DERMAL ABSORPTION PATHWAY ***		
Surface area of exposed skin (SA) (cm2)		4656.0
Soil loading on skin (SL)		0.50
Fraction absorbed across skin (ABS)	- Arsenic	1.00E-03
	- Beryllium	1.00E-03
	- Cadmium	2.00E-03
	- Chlorobenzene	1.00E-01
	- Chromium (hex.)	1.00E-02
	- Dioxins/Dibenzofuran	2.00E-02
	- 2-Chlorophenol	1.00E-01
	- p-Dichlorobenzene	1.00E-01
	- Hexachlorobenzene	1.00E-01
	- Hexachlorocyclohexan	1.00E-01
	- Lead	1.00E-03
	- Mercury	1.00E-02
	- NNitrosodiethylamine	1.00E-01
	- NNitrosodimethylamin	1.00E-01
	- NNitrosodiphenylamin	1.00E-01
	- NNitrosodinbutylamin	1.00E-01
	- NNitrosodinpropylami	1.00E-01
	- NNitromethyethylamin	1.00E-01
	- NNitrosomorpholine	1.00E-01
	- NNitrosopiperidine	1.00E-01
	- NNitrosopyrrolidine	1.00E-01
	- Naphthalene	3.00E-02
	- PAH	3.00E-02
	- Polychlor. biphenyls	1.50E-01
	- Pentachlorophenol	1.00E-01
	- 2,4,6Trichlorophenol	1.00E-01
	- 2,4,5Trichlorophenol	1.00E-01
*** SOIL INGESTION PATHWAY ***		
Lifetime average soil ingestion rate per day (Is) (mg/d)		110.0
Gastrointestinal absorption factor (GI)	- Arsenic	1.00E+00
	- Beryllium	1.00E+00
	- Cadmium	1.00E+00
	- Chlorobenzene	1.00E+00
	- Chromium (hex.)	1.00E+00
	- Dioxins/Dibenzofuran	1.00E+00
	- 2-Chlorophenol	1.00E+00
	- p-Dichlorobenzene	1.00E+00
	- Hexachlorobenzene	1.00E+00
	- Hexachlorocyclohexan	1.00E+00
	- Lead	1.00E+00
	- Mercury	1.00E+00
	- NNitrosodiethylamine	1.00E+00
	- NNitrosodimethylamin	1.00E+00
	- NNitrosodiphenylamin	1.00E+00
	- NNitrosodinbutylamin	1.00E+00
	- NNitrosodinpropylami	1.00E+00

	- NNitromethyethylamin	1.00E+00
	- NNitrosomorpholine	1.00E+00
	- NNitrosopiperidine	1.00E+00
	- NNitrosopyrrolidine	1.00E+00
	- Naphthalene	1.00E+00
	- PAH	1.00E+00
	- Polychlor. biphenyls	1.00E+00
	- Pentachlorophenol	1.00E+00
	- 2,4,6Trichlorophenol	1.00E+00
	- 2,4,5Trichlorophenol	1.00E+00
Bioavailability factors (BIO)	- Arsenic	1.0
	- Beryllium	1.0
	- Cadmium	1.0
	- Chlorobenzene	1.0
	- Chromium (hex.)	1.0
	- Dioxins/Dibenzofuran	4.30E-01
	- 2-Chlorophenol	1.0
	- p-Dichlorobenzene	1.0
	- Hexachlorobenzene	1.0
	- Hexachlorocyclohexan	1.0
	- Lead	1.0
	- Mercury	1.0
	- NNitrosodiethylamine	1.0
	- NNitrosodimethylamin	1.0
	- NNitrosodiphenylamin	1.0
	- NNitrosodinbutylamin	1.0
	- NNitrosodinpropylami	1.0
	- NNitromethyethylamin	1.0
	- NNitrosomorpholine	1.0
	- NNitrosopiperidine	1.0
	- NNitrosopyrrolidine	1.0
	- Naphthalene	1.0
	- PAH	1.0
	- Polychlor. biphenyls	1.0
	- Pentachlorophenol	1.0
	- 2,4,6Trichlorophenol	1.0
	- 2,4,5Trichlorophenol	1.0
*** WATER INGESTION PATHWAY ***		
Lifetime average water ingestion rate per day (Iw) (l/d)		2.0
*** FOOD INGESTION - PLANT PRODUCTS PATHWAY ***		
Site-specific fraction of root vegetable homegrown (L_Ir)		0.150
Site-specific fraction of leafy veget homegrown (L_leafy)		0.150
Site-specific fraction of vine veget homegrown (L_vine)		0.150
Daily consumption rate of root vegetable (IF_Ir) (kg/d)		0.050
Daily consumption rate of leafy veget (IF_leafy) (kg/d)		0.010
Daily consumption rate of vine veget (IF_vine) (kg/d)		0.250
*** FOOD INGESTION - ANIMAL PRODUCTS PATHWAY ***		
Site-specific fraction of milk locally produced (L_Im)		0.00
Site-specific fraction of milk from cows		0.00
Site-specific fraction of milk from goats		0.00
Site-specific fraction of meat locally produced (L_Ib)		0.50
Site-specific fraction of meat from cows		0.50
Site-specific fraction of meat from pigs		0.00
Site-specific fraction of meat from poultry		0.50
Site-specific fraction of meat from goats/sheep		0.00
Site-specific fraction of eggs locally produced		1.00
Site-specific fraction of fish locally produced (L_Ifi)		0.00
Daily consumption rate of milk (IF_Im) (kg/d)		0.30
Daily consumption rate of meat (IF_Ib) (kg/d)		0.10
Daily consumption rate of egg (kg/d)		0.05
Daily consumption rate of fish (IF_Ifi) (kg/d)		0.023
*** MOTHER'S MILK PATHWAY ***		
Beginning of exposure period for mother (d)		0.0
End of exposure period for mother (d)		9490.0
Daily breast-milk ingestion rate (DERm) (kg/d)		0.90
Frequency of exposure (F) (d)		365.0
Period of exposure (YR) (yr)		1.00
Infant average body weight (ABS) (kg)		6.50
Fraction of contaminant partitioned to mother's fat (f1)		0.90
Percent fat of mother's milk (f3)		0.040
Percent mother's weight that is fat (f2)		0.330
Contaminant half-life in mother	- Arsenic	-1.0
(t1/2) (d)	- Beryllium	-1.0
	- Cadmium	-1.0
	- Chlorobenzene	-1.0
	- Chromium (hex.)	-1.0
	- Dioxins/Dibenzofuran	2117.00
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	-1.0
	- Mercury	-1.0
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	1460.0
	- Polychlor. biphenyls	1460.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0

*** PREDICTED PEAK 1-HOUR CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	ACETA	ACROL	As	BENZE	Be	Cd	Cr	Cu	HCHO	HCN
1	0.000E+00	0.000E+00	1.247E-02	0.000E+00	1.445E-02	4.592E-04	1.418E-04	1.076E-03	0.000E+00	7.196E+00
2	0.000E+00	0.000E+00	9.295E-03	0.000E+00	1.080E-02	3.421E-04	1.059E-04	8.028E-04	0.000E+00	4.589E+00
3	0.000E+00	0.000E+00	9.478E-03	0.000E+00	1.101E-02	3.520E-04	1.080E-04	8.186E-04	0.000E+00	4.516E+00
4	0.000E+00	0.000E+00	1.605E-02	0.000E+00	1.866E-02	5.616E-04	1.827E-04	1.385E-03	0.000E+00	8.406E+00
5	0.000E+00	0.000E+00	1.553E-02	0.000E+00	1.806E-02	5.612E-04	1.768E-04	1.340E-03	0.000E+00	8.085E+00
6	0.000E+00	0.000E+00	1.514E-02	0.000E+00	1.760E-02	5.702E-04	1.724E-04	1.307E-03	0.000E+00	7.626E+00
7	0.000E+00	0.000E+00	1.179E-02	0.000E+00	1.374E-02	4.497E-04	1.347E-04	1.018E-03	0.000E+00	4.229E+00
8	0.000E+00	0.000E+00	1.143E-02	0.000E+00	1.328E-02	4.112E-04	1.302E-04	9.873E-04	0.000E+00	4.339E+00
9	0.000E+00	0.000E+00	1.195E-02	0.000E+00	1.390E-02	4.414E-04	1.363E-04	1.033E-03	0.000E+00	4.446E+00
10	0.000E+00	0.000E+00	1.819E-02	0.000E+00	2.105E-02	6.364E-04	2.066E-04	1.570E-03	0.000E+00	1.444E+01
11	0.000E+00	0.000E+00	1.040E-02	0.000E+00	1.210E-02	3.649E-04	1.185E-04	8.979E-04	0.000E+00	7.768E+00
12	0.000E+00	0.000E+00	2.419E-02	0.000E+00	2.813E-02	8.462E-04	2.754E-04	2.088E-03	0.000E+00	2.622E+01
13	0.000E+00	0.000E+00	4.825E-02	0.000E+00	5.617E-02	2.242E-03	5.549E-04	4.164E-03	0.000E+00	1.466E+01
14	0.000E+00	0.000E+00	4.973E-02	0.000E+00	5.793E-02	2.539E-03	5.742E-04	4.292E-03	0.000E+00	1.427E+01
15	0.000E+00	0.000E+00	5.030E-02	0.000E+00	5.863E-02	2.634E-03	5.816E-04	4.342E-03	0.000E+00	1.283E+01
16	0.000E+00	0.000E+00	5.105E-02	0.000E+00	5.955E-02	2.480E-03	5.887E-04	4.407E-03	0.000E+00	1.611E+01
17	0.000E+00	0.000E+00	1.722E-02	0.000E+00	1.997E-02	6.024E-04	1.958E-04	1.486E-03	0.000E+00	1.468E+01
18	0.000E+00	0.000E+00	1.350E-02	0.000E+00	1.568E-02	4.722E-04	1.536E-04	1.165E-03	0.000E+00	1.529E+01
19	0.000E+00	0.000E+00	1.520E-02	0.000E+00	1.765E-02	5.319E-04	1.730E-04	1.312E-03	0.000E+00	1.481E+01
20	0.000E+00	0.000E+00	1.565E-02	0.000E+00	1.816E-02	5.472E-04	1.779E-04	1.350E-03	0.000E+00	1.899E+01
21	0.000E+00	0.000E+00	3.823E-02	0.000E+00	4.342E-02	1.338E-03	4.302E-04	3.297E-03	0.000E+00	3.376E+01
22	0.000E+00	0.000E+00	3.547E-02	0.000E+00	4.044E-02	1.241E-03	3.999E-04	3.060E-03	0.000E+00	3.397E+01
23	0.000E+00	0.000E+00	4.142E-02	0.000E+00	4.768E-02	1.449E-03	4.692E-04	3.574E-03	0.000E+00	3.660E+01
24	0.000E+00	0.000E+00	5.390E-02	0.000E+00	6.216E-02	1.886E-03	6.111E-04	4.651E-03	0.000E+00	3.755E+01
25	0.000E+00	0.000E+00	5.662E-02	0.000E+00	6.527E-02	1.981E-03	6.418E-04	4.885E-03	0.000E+00	3.761E+01
26	0.000E+00	0.000E+00	4.988E-02	0.000E+00	5.794E-02	1.950E-03	5.695E-04	4.305E-03	0.000E+00	4.048E+01
27	0.000E+00	0.000E+00	3.754E-02	0.000E+00	4.422E-02	1.483E-03	4.317E-04	3.241E-03	0.000E+00	2.453E+01
28	0.000E+00	0.000E+00	3.860E-02	0.000E+00	4.473E-02	1.350E-03	4.388E-04	3.331E-03	0.000E+00	2.567E+01
29	0.000E+00	0.000E+00	5.981E-02	0.000E+00	6.926E-02	2.092E-03	6.795E-04	5.161E-03	0.000E+00	2.895E+01
30	0.000E+00	0.000E+00	6.826E-02	0.000E+00	7.931E-02	2.387E-03	7.768E-04	5.891E-03	0.000E+00	3.080E+01
31	0.000E+00	0.000E+00	6.526E-02	0.000E+00	7.594E-02	2.282E-03	7.432E-04	5.632E-03	0.000E+00	3.607E+01
32	0.000E+00	0.000E+00	5.406E-02	0.000E+00	6.303E-02	1.891E-03	6.163E-04	4.666E-03	0.000E+00	4.389E+01
33	0.000E+00	0.000E+00	5.101E-02	0.000E+00	5.952E-02	2.040E-03	5.841E-04	4.403E-03	0.000E+00	4.429E+01
34	0.000E+00	0.000E+00	5.153E-02	0.000E+00	6.001E-02	1.916E-03	5.881E-04	4.448E-03	0.000E+00	4.528E+01
35	0.000E+00	0.000E+00	3.538E-02	0.000E+00	4.099E-02	1.237E-03	4.020E-04	3.053E-03	0.000E+00	4.364E+01
36	0.000E+00	0.000E+00	2.912E-02	0.000E+00	3.376E-02	1.019E-03	3.310E-04	2.513E-03	0.000E+00	4.184E+01
37	0.000E+00	0.000E+00	3.171E-02	0.000E+00	3.686E-02	1.109E-03	3.609E-04	2.737E-03	0.000E+00	3.997E+01
38	0.000E+00	0.000E+00	1.616E-02	0.000E+00	1.873E-02	5.651E-04	1.836E-04	1.394E-03	0.000E+00	3.986E+01
39	0.000E+00	0.000E+00	1.742E-02	0.000E+00	2.019E-02	6.095E-04	1.980E-04	1.504E-03	0.000E+00	4.475E+01
40	0.000E+00	0.000E+00	1.890E-02	0.000E+00	2.188E-02	6.612E-04	2.147E-04	1.631E-03	0.000E+00	4.465E+01
41	0.000E+00	0.000E+00	2.429E-02	0.000E+00	2.809E-02	6.293E-03	2.758E-04	2.096E-03	0.000E+00	3.741E+01
42	0.000E+00	0.000E+00	2.521E-02	0.000E+00	2.897E-02	1.841E-03	2.853E-04	2.175E-03	0.000E+00	2.004E+01
43	0.000E+00	0.000E+00	1.336E-02	0.000E+00	1.521E-02	1.321E-03	1.505E-04	1.152E-03	0.000E+00	2.094E+01
44	0.000E+00	0.000E+00	9.444E-03	0.000E+00	1.107E-02	3.127E-03	1.094E-04	8.183E-04	0.000E+00	2.178E+01
45	0.000E+00	0.000E+00	1.196E-02	0.000E+00	1.376E-02	4.341E-04	1.354E-04	1.032E-03	0.000E+00	2.066E+01
46	0.000E+00	0.000E+00	1.118E-02	0.000E+00	1.284E-02	4.055E-04	1.265E-04	9.644E-04	0.000E+00	1.927E+01
47	0.000E+00	0.000E+00	1.255E-02	0.000E+00	1.430E-02	1.011E-03	1.422E-04	1.084E-03	0.000E+00	1.619E+01
48	0.000E+00	0.000E+00	1.653E-02	0.000E+00	1.907E-02	7.275E-04	1.876E-04	1.427E-03	0.000E+00	1.309E+01
49	0.000E+00	0.000E+00	1.326E-02	0.000E+00	1.514E-02	1.096E-03	1.517E-04	1.146E-03	0.000E+00	1.078E+01
50	0.000E+00	0.000E+00	1.564E-02	0.000E+00	1.787E-02	1.656E-03	1.781E-04	1.354E-03	0.000E+00	9.421E+00
51	0.000E+00	0.000E+00	1.552E-02	0.000E+00	1.791E-02	2.556E-03	1.781E-04	1.344E-03	0.000E+00	9.681E+00
52	0.000E+00	0.000E+00	1.314E-02	0.000E+00	1.519E-02	1.390E-03	1.511E-04	1.137E-03	0.000E+00	9.715E+00
53	0.000E+00	0.000E+00	1.036E-02	0.000E+00	1.190E-02	4.850E-04	1.172E-04	8.937E-04	0.000E+00	1.017E+01
54	0.000E+00	0.000E+00	1.087E-02	0.000E+00	1.252E-02	1.896E-03	1.237E-04	9.391E-04	0.000E+00	1.036E+01
55	0.000E+00	0.000E+00	1.331E-02	0.000E+00	1.542E-02	1.827E-03	1.530E-04	1.152E-03	0.000E+00	8.870E+00
56	0.000E+00	0.000E+00	1.532E-02	0.000E+00	1.771E-02	1.738E-03	1.749E-04	1.325E-03	0.000E+00	8.151E+00
57	0.000E+00	0.000E+00	1.694E-02	0.000E+00	1.967E-02	6.857E-04	1.929E-04	1.463E-03	0.000E+00	7.381E+00
58	0.000E+00	0.000E+00	1.824E-02	0.000E+00	2.123E-02	6.833E-04	2.078E-04	1.575E-03	0.000E+00	7.228E+00
59	0.000E+00	0.000E+00	2.012E-02	0.000E+00	2.347E-02	1.969E-03	2.294E-04	1.738E-03	0.000E+00	7.080E+00
60	0.000E+00	0.000E+00	2.355E-02	0.000E+00	2.748E-02	9.154E-04	2.694E-04	2.035E-03	0.000E+00	6.963E+00
61	0.000E+00	0.000E+00	4.118E-02	0.000E+00	4.712E-02	1.768E-03	4.679E-04	3.559E-03	0.000E+00	6.812E+00
62	0.000E+00	0.000E+00	4.503E-02	0.000E+00	5.118E-02	1.912E-03	5.099E-04	3.891E-03	0.000E+00	6.681E+00
63	0.000E+00	0.000E+00	3.032E-02	0.000E+00	3.529E-02	1.060E-03	3.453E-04	2.619E-03	0.000E+00	6.566E+00
64	0.000E+00	0.000E+00	2.731E-02	0.000E+00	3.178E-02	2.485E-03	3.110E-04	2.357E-03	0.000E+00	6.195E+00
65	0.000E+00	0.000E+00	1.992E-02	0.000E+00	2.302E-02	1.155E-03	2.270E-04	1.721E-03	0.000E+00	6.123E+00
66	0.000E+00	0.000E+00	2.351E-02	0.000E+00	2.708E-02	9.327E-04	2.664E-04	2.031E-03	0.000E+00	6.048E+00
67	0.000E+00	0.000E+00	1.979E-02	0.000E+00	2.305E-02	8.800E-04	2.255E-04	1.710E-03	0.000E+00	5.983E+00
68	0.000E+00	0.000E+00	1.779E-02	0.000E+00	2.020E-02	3.188E-03	2.001E-04	1.534E-03	0.000E+00	6.223E+00
69	0.000E+00	0.000E+00	2.664E-02	0.000E+00	3.063E-02	1.212E-03	3.016E-04	2.298E-03	0.000E+00	6.953E+00
70	0.000E+00	0.000E+00	3.176E-02	0.000E+00	3.667E-02	1.274E-03	3.619E-04	2.741E-03	0.000E+00	7.957E+00
71	0.000E+00	0.000E+00	4.328E-02	0.000E+00	4.895E-02	1.818E-03	4.860E-04	3.743E-03	0.000E+00	8.086E+00
72	0.000E+00	0.000E+00	2.458E-02	0.000E+00	2.849E-02	9.776E-04	2.805E-04	2.121E-03	0.000E+00	8.199E+00
73	0.000E+00	0.000E+00	1.651E-02	0.000E+00	1.904E-02	1.970E-03	1.875E-04	1.425E-03	0.000E+00	8.231E+00
74	0.000E+00	0.000E+00	2.083E-02	0.000E+00	2.416E-02	8.188E-04	2.377E-04	1.799E-03	0.000E+00	8.229E+00
75	0.000E+00	0.000E+00	1.643E-02	0.000E+00	1.903E-02	1.921E-03	1.885E-04	1.419E-03	0.000E+00	9.217E+00
76	0.000E+00	0.000E+00	1.683E-02	0.000E+00	1.946E-02	8.936E-04	1.911E-04	1.453E-03	0.000E+00	9.818E+00
77	0.000E+00	0.000E+00	1.861E-02	0.000E+00	2.155E-02	7.720E-04	2.114E-04	1.606E-03	0.000E+00	1.056E+01
78	0.000E+00	0.000E+00	1.842E-02	0.000E+00	2.142E-02	1.855E-03	2.097E-04	1.590E-03	0.000E+00	1.063E+01
79	0.000E+00	0.000E+00	2.066E-02	0.000E+00	2.403E-02	2.102E-03	2.352E-04	1.783E-03	0.000E+00	1.138E+01
80	0.000E+00	0.000E+00	2.129E-02	0.000E+00	2.474E-02	1.096E-03	2.423E-04	1.837E-03	0.000E+00	1.239E+01
81	0.000E+00	0.000E+00	1.962E-02	0.000E+00	2.273E-02	9.494E-04	2.230E-04	1.693E-03	0.000E+00	1.357E+01
82	0.000E+00	0.000E+00	1.858E-02	0.000E+00	2.140E-02	6.500E-04	2.105E-04	1.603E-03	0.000E+00	1.505E+01

83	0.000E+00	0.000E+00	2.062E-02	0.000E+00	2.374E-02	7.214E-04	2.336E-04	1.779E-03	0.000E+00	1.700E+01
84	0.000E+00	0.000E+00	2.138E-02	0.000E+00	2.461E-02	7.480E-04	2.422E-04	1.845E-03	0.000E+00	2.001E+01
85	0.000E+00	0.000E+00	2.931E-02	0.000E+00	3.382E-02	1.025E-03	3.324E-04	2.529E-03	0.000E+00	2.545E+01
86	0.000E+00	0.000E+00	6.165E-02	0.000E+00	7.069E-02	2.157E-03	6.971E-04	5.319E-03	0.000E+00	4.141E+01
87	0.000E+00	0.000E+00	5.620E-02	0.000E+00	6.469E-02	1.966E-03	6.367E-04	4.849E-03	0.000E+00	3.892E+01
88	0.000E+00	0.000E+00	5.444E-02	0.000E+00	6.292E-02	1.904E-03	6.179E-04	4.698E-03	0.000E+00	4.017E+01
89	0.000E+00	0.000E+00	5.266E-02	0.000E+00	6.101E-02	1.842E-03	5.984E-04	4.545E-03	0.000E+00	3.082E+01
90	0.000E+00	0.000E+00	4.649E-02	0.000E+00	5.392E-02	1.626E-03	5.286E-04	4.012E-03	0.000E+00	3.201E+01
91	0.000E+00	0.000E+00	1.637E-02	0.000E+00	1.897E-02	5.910E-04	1.862E-04	1.414E-03	0.000E+00	5.940E+00
92	0.000E+00	0.000E+00	1.699E-02	0.000E+00	1.971E-02	6.456E-04	1.937E-04	1.468E-03	0.000E+00	5.686E+00
93	0.000E+00	0.000E+00	1.627E-02	0.000E+00	1.886E-02	6.669E-04	1.858E-04	1.405E-03	0.000E+00	5.466E+00
94	0.000E+00	0.000E+00	1.699E-02	0.000E+00	1.983E-02	6.806E-04	1.939E-04	1.467E-03	0.000E+00	5.385E+00
95	0.000E+00	0.000E+00	1.810E-02	0.000E+00	2.114E-02	6.727E-04	2.067E-04	1.563E-03	0.000E+00	5.415E+00
96	0.000E+00	0.000E+00	1.830E-02	0.000E+00	2.116E-02	6.647E-04	2.078E-04	1.580E-03	0.000E+00	5.441E+00
97	0.000E+00	0.000E+00	2.187E-02	0.000E+00	2.537E-02	7.668E-04	2.487E-04	1.888E-03	0.000E+00	5.477E+00
98	0.000E+00	0.000E+00	2.471E-02	0.000E+00	2.854E-02	8.645E-04	2.804E-04	2.132E-03	0.000E+00	5.520E+00
99	0.000E+00	0.000E+00	2.134E-02	0.000E+00	2.482E-02	7.675E-04	2.432E-04	1.843E-03	0.000E+00	5.560E+00
100	0.000E+00	0.000E+00	2.258E-02	0.000E+00	2.604E-02	7.914E-04	2.560E-04	1.948E-03	0.000E+00	5.599E+00
101	0.000E+00	0.000E+00	2.093E-02	0.000E+00	2.436E-02	1.385E-03	2.384E-04	1.806E-03	0.000E+00	5.646E+00
102	0.000E+00	0.000E+00	2.362E-02	0.000E+00	2.752E-02	8.260E-04	2.692E-04	2.040E-03	0.000E+00	5.712E+00
103	0.000E+00	0.000E+00	1.671E-02	0.000E+00	1.935E-02	6.167E-04	1.901E-04	1.444E-03	0.000E+00	5.890E+00
104	0.000E+00	0.000E+00	1.583E-02	0.000E+00	1.832E-02	6.394E-04	1.806E-04	1.369E-03	0.000E+00	5.653E+00
105	0.000E+00	0.000E+00	1.688E-02	0.000E+00	1.970E-02	6.474E-04	1.926E-04	1.458E-03	0.000E+00	5.488E+00
106	0.000E+00	0.000E+00	1.841E-02	0.000E+00	2.149E-02	1.125E-03	2.101E-04	1.590E-03	0.000E+00	5.523E+00
107	0.000E+00	0.000E+00	2.027E-02	0.000E+00	2.345E-02	9.343E-04	2.302E-04	1.749E-03	0.000E+00	5.555E+00
108	0.000E+00	0.000E+00	2.279E-02	0.000E+00	2.642E-02	7.982E-04	2.591E-04	1.967E-03	0.000E+00	5.564E+00
109	0.000E+00	0.000E+00	2.439E-02	0.000E+00	2.834E-02	9.090E-04	2.776E-04	2.105E-03	0.000E+00	5.628E+00
110	0.000E+00	0.000E+00	2.382E-02	0.000E+00	2.772E-02	1.203E-03	2.714E-04	2.057E-03	0.000E+00	5.668E+00
111	0.000E+00	0.000E+00	2.008E-02	0.000E+00	2.337E-02	1.025E-03	2.291E-04	1.736E-03	0.000E+00	5.709E+00
112	0.000E+00	0.000E+00	2.267E-02	0.000E+00	2.639E-02	1.327E-03	2.583E-04	1.957E-03	0.000E+00	5.753E+00
113	0.000E+00	0.000E+00	2.610E-02	0.000E+00	3.043E-02	1.542E-03	2.975E-04	2.253E-03	0.000E+00	5.794E+00
114	0.000E+00	0.000E+00	2.729E-02	0.000E+00	3.183E-02	9.544E-04	3.112E-04	2.357E-03	0.000E+00	5.871E+00
115	0.000E+00	0.000E+00	1.520E-02	0.000E+00	1.754E-02	6.810E-04	1.729E-04	1.314E-03	0.000E+00	5.861E+00
116	0.000E+00	0.000E+00	1.664E-02	0.000E+00	1.942E-02	9.961E-04	1.898E-04	1.437E-03	0.000E+00	5.607E+00
117	0.000E+00	0.000E+00	1.859E-02	0.000E+00	2.170E-02	1.172E-03	2.121E-04	1.605E-03	0.000E+00	5.638E+00
118	0.000E+00	0.000E+00	2.154E-02	0.000E+00	2.491E-02	1.742E-03	2.446E-04	1.859E-03	0.000E+00	5.674E+00
119	0.000E+00	0.000E+00	2.529E-02	0.000E+00	2.931E-02	2.442E-03	2.874E-04	2.183E-03	0.000E+00	5.712E+00
120	0.000E+00	0.000E+00	2.676E-02	0.000E+00	3.110E-02	1.684E-03	3.046E-04	2.310E-03	0.000E+00	5.745E+00
121	0.000E+00	0.000E+00	2.533E-02	0.000E+00	2.947E-02	1.253E-03	2.885E-04	2.188E-03	0.000E+00	5.785E+00
122	0.000E+00	0.000E+00	2.237E-02	0.000E+00	2.604E-02	1.902E-03	2.551E-04	1.933E-03	0.000E+00	5.830E+00
123	0.000E+00	0.000E+00	2.421E-02	0.000E+00	2.819E-02	1.861E-03	2.758E-04	2.090E-03	0.000E+00	5.871E+00
124	0.000E+00	0.000E+00	2.710E-02	0.000E+00	3.159E-02	1.999E-03	3.089E-04	2.339E-03	0.000E+00	5.942E+00
125	0.000E+00	0.000E+00	2.830E-02	0.000E+00	3.300E-02	9.896E-04	3.226E-04	2.444E-03	0.000E+00	5.992E+00
126	0.000E+00	0.000E+00	2.948E-02	0.000E+00	3.439E-02	1.031E-03	3.361E-04	2.546E-03	0.000E+00	6.040E+00
127	0.000E+00	0.000E+00	1.629E-02	0.000E+00	1.899E-02	1.413E-03	1.857E-04	1.407E-03	0.000E+00	5.806E+00
128	0.000E+00	0.000E+00	1.864E-02	0.000E+00	2.175E-02	1.660E-03	2.126E-04	1.610E-03	0.000E+00	5.767E+00
129	0.000E+00	0.000E+00	2.218E-02	0.000E+00	2.559E-02	2.339E-03	2.515E-04	1.914E-03	0.000E+00	5.810E+00
130	0.000E+00	0.000E+00	2.462E-02	0.000E+00	2.845E-02	8.611E-04	2.794E-04	2.126E-03	0.000E+00	5.862E+00
131	0.000E+00	0.000E+00	2.240E-02	0.000E+00	2.590E-02	9.492E-04	2.552E-04	1.935E-03	0.000E+00	5.885E+00
132	0.000E+00	0.000E+00	2.773E-02	0.000E+00	3.226E-02	2.393E-03	3.166E-04	2.395E-03	0.000E+00	5.941E+00
133	0.000E+00	0.000E+00	2.418E-02	0.000E+00	2.815E-02	2.071E-03	2.758E-04	2.090E-03	0.000E+00	5.957E+00
134	0.000E+00	0.000E+00	2.466E-02	0.000E+00	2.870E-02	9.988E-04	2.808E-04	2.128E-03	0.000E+00	6.022E+00
135	0.000E+00	0.000E+00	2.691E-02	0.000E+00	3.136E-02	9.413E-04	3.067E-04	2.323E-03	0.000E+00	6.079E+00
136	0.000E+00	0.000E+00	3.647E-02	0.000E+00	4.093E-02	1.632E-03	4.112E-04	3.152E-03	0.000E+00	6.123E+00
137	0.000E+00	0.000E+00	3.125E-02	0.000E+00	3.648E-02	1.404E-03	3.565E-04	2.700E-03	0.000E+00	6.171E+00
138	0.000E+00	0.000E+00	3.141E-02	0.000E+00	3.528E-02	1.435E-03	3.545E-04	2.715E-03	0.000E+00	6.222E+00
139	0.000E+00	0.000E+00	1.861E-02	0.000E+00	2.167E-02	2.951E-03	2.120E-04	1.608E-03	0.000E+00	5.950E+00
140	0.000E+00	0.000E+00	2.194E-02	0.000E+00	2.522E-02	8.498E-04	2.483E-04	1.893E-03	0.000E+00	5.963E+00
141	0.000E+00	0.000E+00	2.513E-02	0.000E+00	2.895E-02	8.793E-04	2.848E-04	2.171E-03	0.000E+00	5.995E+00
142	0.000E+00	0.000E+00	2.490E-02	0.000E+00	2.605E-02	1.370E-03	2.738E-04	2.154E-03	0.000E+00	6.017E+00
143	0.000E+00	0.000E+00	2.350E-02	0.000E+00	2.475E-02	1.291E-03	2.589E-04	2.032E-03	0.000E+00	6.076E+00
144	0.000E+00	0.000E+00	2.469E-02	0.000E+00	2.872E-02	9.593E-04	2.820E-04	2.134E-03	0.000E+00	6.128E+00
145	0.000E+00	0.000E+00	2.621E-02	0.000E+00	3.050E-02	1.124E-03	2.985E-04	2.262E-03	0.000E+00	6.169E+00
146	0.000E+00	0.000E+00	2.779E-02	0.000E+00	3.236E-02	9.718E-04	3.166E-04	2.398E-03	0.000E+00	6.223E+00
147	0.000E+00	0.000E+00	3.197E-02	0.000E+00	3.729E-02	1.446E-03	3.645E-04	2.761E-03	0.000E+00	6.271E+00
148	0.000E+00	0.000E+00	4.011E-02	0.000E+00	4.525E-02	1.761E-03	4.518E-04	3.466E-03	0.000E+00	6.321E+00
149	0.000E+00	0.000E+00	4.132E-02	0.000E+00	4.684E-02	1.763E-03	4.668E-04	3.570E-03	0.000E+00	6.372E+00
150	0.000E+00	0.000E+00	3.998E-02	0.000E+00	4.551E-02	1.703E-03	4.524E-04	3.454E-03	0.000E+00	6.412E+00
151	0.000E+00	0.000E+00	2.871E-02	0.000E+00	3.342E-02	1.004E-03	3.270E-04	2.478E-03	0.000E+00	6.380E+00
152	0.000E+00	0.000E+00	3.874E-02	0.000E+00	4.320E-02	1.777E-03	4.358E-04	3.348E-03	0.000E+00	6.425E+00
153	0.000E+00	0.000E+00	4.403E-02	0.000E+00	4.953E-02	1.889E-03	4.962E-04	3.804E-03	0.000E+00	6.480E+00
154	0.000E+00	0.000E+00	2.935E-02	0.000E+00	3.426E-02	1.077E-03	3.347E-04	2.533E-03	0.000E+00	6.545E+00
155	0.000E+00	0.000E+00	4.272E-02	0.000E+00	4.875E-02	1.783E-03	4.843E-04	3.691E-03	0.000E+00	6.571E+00
156	0.000E+00	0.000E+00	4.022E-02	0.000E+00	4.593E-02	1.727E-03	4.566E-04	3.476E-03	0.000E+00	6.653E+00
157	0.000E+00	0.000E+00	1.939E-02	0.000E+00	2.250E-02	7.596E-04	2.213E-04	1.675E-03	0.000E+00	8.243E+00
158	0.000E+00	0.000E+00	1.649E-02	0.000E+00	1.886E-02	7.347E-04	1.874E-04	1.425E-03	0.000E+00	7.236E+00
159	0.000E+00	0.000E+00	1.051E-02	0.000E+00	1.215E-02	4.703E-04	1.193E-04	9.070E-04	0.000E+00	6.415E+00
160	0.000E+00	0.000E+00	1.346E-02	0.000E+00	1.534E-02	4.711E-04	1.517E-04	1.161E-03	0.000E+00	5.781E+00
161	0.000E+00	0.000E+00	1.395E-02	0.000E+00	1.621E-02	5.192E-04	1.591E-04	1.205E-03	0.000E+00	5.261E+00
162	0.000E+00	0.000E+00	1.403E-02	0.000E+00	1.634E-02	5.061E-04	1.600E-04	1.212E-03	0.000E+00	4.856E+00
163	0.000E+00	0.000E+00	1.546E-02	0.000E+00	1.804E-02	5.758E-04	1.766E-04	1.336E-03	0.000E+00	4.902E+00
164	0.000E+00	0.000E+00	1.542E-02	0.000E+00	1.781E-02	5.396E-04	1.750E-04	1.331E-03	0.000E+00	5.001E+00
165	0.000E+00	0.000E+00	2.382E-02	0.000E+00	2.765E-02	8.340E-04	2.710E-04	2.056E-03	0.000E+00	5.083E+00
166	0.000E+00	0.000E+00	2.575E-02	0.000E+00	2.995E-02	9.074E-04	2.933E-04	2.223E-03	0.000E+00	5.171E+00
167	0.000E+00	0.000E+00	2.168E-02	0.000E+00	2.527E-02	7.593E-04	2.471E-04	1.871E-03	0.000E+00	5.261E+00
168	0.000E+00	0.000E+00	1.372E-02	0.000E+00	1.585E-02	5.514E-04	1.557E-04	1.184E-03	0.000E+00	7.254E+00
169	0.000E+00	0.000E+00	1.144E-02	0.000E+00	1.322E-02	4.003E-04	1.298E-04	9.874E-04	0.000E+00	6.378E+00
170	0.000E+00	0.000E+00	1.497E-02	0.000E+00	1.737E-02	5.378E-04	1.704E-04	1.292E-03	0.000E+00	5.686E+00
171	0.000E+00	0.000E+00	1.471E-02	0.000E+00	1.708E-02	5.813E-04	1.679E-04	1.270E-03	0.000E+00	5.182E+00
172	0.000E+00	0.000E+00	1.644E-02	0.000E+00	1.919E-02	6.001E-04	1.878E-04	1.420E-03	0.000E+00	5.084E+00
173	0.000E+00	0.000E+00	1.620E-02	0.000E+00	1.868E-02	5.694E-04	1.837E-04	1.398E-03	0.000E+00	5.168E+00
174	0.000E+00	0.000E+00	2.356E-02	0.000E+00	2.728E-02	8.247E-04	2.677E-04	2.033E-03	0.000E+00	5.259E+00
175	0.000E+00	0.000E+00	2.293E-02	0.000E+00	2.659E-02	8.149E-04	2.608E-04	1.979E-03	0.000E+00	5.358E+00
176	0.000E+00	0.000E+00	2.431E-02	0.000E+00	2.835E-02	8.512E-04	2.772E-04	2.098E-03	0.000E+00	5.462E+00
177	0.000E+00	0.000E+00	2.602E-02	0.000E+00	3.038E-02	9.203E-04	2.969E-04	2.247E-03	0.000E+00	5.565E+00
178	0.000E+00	0.000E+00	1.655E-02	0.000E+00	1.922E-02	2.383E-03	1.889E-04	1.430E-03	0.000E+00	7.179E+00
179	0.000E+00	0.000E+00	1.239E-02	0.000E+00	1.428E-02	5.094E-04	1.404E-04	1.069E-03	0.000E+00	6.264E+00

180	0.000E+00	0.000E+00	1.704E-02	0.000E+00	1.979E-02	6.420E-04	1.943E-04	1.472E-03	0.000E+00	5.594E+00
181	0.000E+00	0.000E+00	1.697E-02	0.000E+00	1.981E-02	6.076E-04	1.937E-04	1.466E-03	0.000E+00	5.286E+00
182	0.000E+00	0.000E+00	2.145E-02	0.000E+00	2.489E-02	1.150E-03	2.439E-04	1.851E-03	0.000E+00	5.364E+00
183	0.000E+00	0.000E+00	2.269E-02	0.000E+00	2.619E-02	7.941E-04	2.574E-04	1.958E-03	0.000E+00	5.465E+00
184	0.000E+00	0.000E+00	2.076E-02	0.000E+00	2.417E-02	7.261E-04	2.365E-04	1.792E-03	0.000E+00	5.592E+00
185	0.000E+00	0.000E+00	2.749E-02	0.000E+00	3.208E-02	1.422E-03	3.135E-04	2.373E-03	0.000E+00	5.686E+00
186	0.000E+00	0.000E+00	2.692E-02	0.000E+00	3.143E-02	9.536E-04	3.072E-04	2.324E-03	0.000E+00	5.803E+00
187	0.000E+00	0.000E+00	2.521E-02	0.000E+00	2.942E-02	8.832E-04	2.875E-04	2.176E-03	0.000E+00	5.917E+00
188	0.000E+00	0.000E+00	2.126E-02	0.000E+00	2.451E-02	9.227E-04	2.410E-04	1.834E-03	0.000E+00	7.063E+00
189	0.000E+00	0.000E+00	1.369E-02	0.000E+00	1.577E-02	8.291E-04	1.553E-04	1.183E-03	0.000E+00	6.147E+00
190	0.000E+00	0.000E+00	1.678E-02	0.000E+00	1.958E-02	8.236E-04	1.914E-04	1.449E-03	0.000E+00	5.546E+00
191	0.000E+00	0.000E+00	2.315E-02	0.000E+00	2.681E-02	1.695E-03	2.630E-04	1.998E-03	0.000E+00	5.626E+00
192	0.000E+00	0.000E+00	2.456E-02	0.000E+00	2.858E-02	1.239E-03	2.798E-04	2.121E-03	0.000E+00	5.726E+00
193	0.000E+00	0.000E+00	2.507E-02	0.000E+00	2.921E-02	1.929E-03	2.856E-04	2.163E-03	0.000E+00	5.831E+00
194	0.000E+00	0.000E+00	2.921E-02	0.000E+00	3.409E-02	1.021E-03	3.331E-04	2.523E-03	0.000E+00	5.977E+00
195	0.000E+00	0.000E+00	2.671E-02	0.000E+00	3.119E-02	1.531E-03	3.049E-04	2.307E-03	0.000E+00	6.081E+00
196	0.000E+00	0.000E+00	2.641E-02	0.000E+00	3.083E-02	1.619E-03	3.019E-04	2.280E-03	0.000E+00	6.232E+00
197	0.000E+00	0.000E+00	2.337E-02	0.000E+00	2.726E-02	8.363E-04	2.666E-04	2.018E-03	0.000E+00	6.349E+00
198	0.000E+00	0.000E+00	2.552E-02	0.000E+00	2.932E-02	1.109E-03	2.888E-04	2.201E-03	0.000E+00	6.946E+00
199	0.000E+00	0.000E+00	1.585E-02	0.000E+00	1.844E-02	2.991E-03	1.805E-04	1.368E-03	0.000E+00	6.045E+00
200	0.000E+00	0.000E+00	2.403E-02	0.000E+00	2.766E-02	8.421E-04	2.722E-04	2.075E-03	0.000E+00	5.972E+00
201	0.000E+00	0.000E+00	2.641E-02	0.000E+00	3.073E-02	9.235E-04	3.007E-04	2.279E-03	0.000E+00	6.198E+00
202	0.000E+00	0.000E+00	3.966E-02	0.000E+00	4.524E-02	1.692E-03	4.497E-04	3.427E-03	0.000E+00	6.456E+00
203	0.000E+00	0.000E+00	2.567E-02	0.000E+00	2.997E-02	9.811E-04	2.936E-04	2.218E-03	0.000E+00	6.608E+00
204	0.000E+00	0.000E+00	2.093E-02	0.000E+00	2.440E-02	7.664E-04	2.389E-04	1.809E-03	0.000E+00	6.716E+00
205	0.000E+00	0.000E+00	1.912E-02	0.000E+00	2.229E-02	7.009E-04	2.180E-04	1.651E-03	0.000E+00	6.903E+00
206	0.000E+00	0.000E+00	1.617E-02	0.000E+00	1.873E-02	6.729E-04	1.841E-04	1.397E-03	0.000E+00	7.596E+00
207	0.000E+00	0.000E+00	1.479E-02	0.000E+00	1.712E-02	5.860E-04	1.686E-04	1.280E-03	0.000E+00	8.492E+00
208	0.000E+00	0.000E+00	7.650E-03	0.000E+00	8.854E-03	3.188E-04	8.723E-05	6.601E-04	0.000E+00	7.568E+00
209	0.000E+00	0.000E+00	9.925E-03	0.000E+00	1.150E-02	3.651E-04	1.130E-04	8.567E-04	0.000E+00	7.600E+00
210	0.000E+00	0.000E+00	1.099E-02	0.000E+00	1.273E-02	3.862E-04	1.249E-04	9.482E-04	0.000E+00	7.601E+00
211	0.000E+00	0.000E+00	9.459E-03	0.000E+00	1.102E-02	3.981E-04	1.085E-04	8.181E-04	0.000E+00	7.676E+00
212	0.000E+00	0.000E+00	1.245E-02	0.000E+00	1.446E-02	4.930E-04	1.422E-04	1.075E-03	0.000E+00	7.526E+00
213	0.000E+00	0.000E+00	1.439E-02	0.000E+00	1.669E-02	5.249E-04	1.638E-04	1.242E-03	0.000E+00	6.965E+00
214	0.000E+00	0.000E+00	1.133E-02	0.000E+00	1.312E-02	4.340E-04	1.288E-04	9.777E-04	0.000E+00	6.350E+00
215	0.000E+00	0.000E+00	1.466E-02	0.000E+00	1.703E-02	5.283E-04	1.670E-04	1.266E-03	0.000E+00	6.274E+00
216	0.000E+00	0.000E+00	1.400E-02	0.000E+00	1.627E-02	5.309E-04	1.594E-04	1.209E-03	0.000E+00	6.156E+00
217	0.000E+00	0.000E+00	1.484E-02	0.000E+00	1.723E-02	5.457E-04	1.690E-04	1.281E-03	0.000E+00	6.233E+00
218	0.000E+00	0.000E+00	1.323E-02	0.000E+00	1.537E-02	5.208E-04	1.507E-04	1.142E-03	0.000E+00	5.935E+00
219	0.000E+00	0.000E+00	1.702E-02	0.000E+00	1.963E-02	6.343E-04	1.933E-04	1.468E-03	0.000E+00	5.328E+00
220	0.000E+00	0.000E+00	1.015E-02	0.000E+00	1.171E-02	3.559E-04	1.151E-04	8.758E-04	0.000E+00	4.985E+00
221	0.000E+00	0.000E+00	6.046E-03	0.000E+00	7.002E-03	2.163E-04	6.874E-05	5.220E-04	0.000E+00	4.515E+00
222	0.000E+00	0.000E+00	8.303E-03	0.000E+00	9.644E-03	3.197E-04	9.475E-05	7.172E-04	0.000E+00	4.095E+00
223	0.000E+00	0.000E+00	9.791E-03	0.000E+00	1.141E-02	3.699E-04	1.119E-04	8.461E-04	0.000E+00	3.882E+00
224	0.000E+00	0.000E+00	1.059E-02	0.000E+00	1.234E-02	4.047E-04	1.210E-04	9.151E-04	0.000E+00	3.956E+00
225	0.000E+00	0.000E+00	1.071E-02	0.000E+00	1.246E-02	3.934E-04	1.221E-04	9.248E-04	0.000E+00	4.035E+00
226	0.000E+00	0.000E+00	1.195E-02	0.000E+00	1.386E-02	4.232E-04	1.359E-04	1.031E-03	0.000E+00	4.110E+00
227	0.000E+00	0.000E+00	1.129E-02	0.000E+00	1.307E-02	3.982E-04	1.282E-04	9.740E-04	0.000E+00	7.821E+00
228	0.000E+00	0.000E+00	9.656E-03	0.000E+00	1.116E-02	3.380E-04	1.096E-04	8.332E-04	0.000E+00	8.249E+00
229	0.000E+00	0.000E+00	9.876E-03	0.000E+00	1.145E-02	3.625E-04	1.124E-04	8.525E-04	0.000E+00	8.356E+00
230	0.000E+00	0.000E+00	1.179E-02	0.000E+00	1.366E-02	4.134E-04	1.339E-04	1.017E-03	0.000E+00	8.638E+00
231	0.000E+00	0.000E+00	1.034E-02	0.000E+00	1.203E-02	4.379E-04	1.185E-04	8.940E-04	0.000E+00	8.150E+00
232	0.000E+00	0.000E+00	1.371E-02	0.000E+00	1.591E-02	5.258E-04	1.564E-04	1.184E-03	0.000E+00	7.705E+00
233	0.000E+00	0.000E+00	1.499E-02	0.000E+00	1.740E-02	5.335E-04	1.706E-04	1.294E-03	0.000E+00	7.220E+00
234	0.000E+00	0.000E+00	1.318E-02	0.000E+00	1.529E-02	4.927E-04	1.499E-04	1.137E-03	0.000E+00	6.936E+00
235	0.000E+00	0.000E+00	1.482E-02	0.000E+00	1.722E-02	5.287E-04	1.687E-04	1.279E-03	0.000E+00	6.886E+00
236	0.000E+00	0.000E+00	1.551E-02	0.000E+00	1.801E-02	5.659E-04	1.766E-04	1.338E-03	0.000E+00	6.823E+00
237	0.000E+00	0.000E+00	1.376E-02	0.000E+00	1.599E-02	5.449E-04	1.568E-04	1.188E-03	0.000E+00	6.468E+00
238	0.000E+00	0.000E+00	1.700E-02	0.000E+00	1.956E-02	6.254E-04	1.928E-04	1.467E-03	0.000E+00	5.796E+00
239	0.000E+00	0.000E+00	1.004E-02	0.000E+00	1.158E-02	3.516E-04	1.139E-04	8.667E-04	0.000E+00	5.050E+00
240	0.000E+00	0.000E+00	9.030E-03	0.000E+00	1.049E-02	3.299E-04	1.029E-04	7.799E-04	0.000E+00	4.623E+00
241	0.000E+00	0.000E+00	9.566E-03	0.000E+00	1.115E-02	3.460E-04	1.091E-04	8.263E-04	0.000E+00	4.173E+00
242	0.000E+00	0.000E+00	1.132E-02	0.000E+00	1.320E-02	4.257E-04	1.293E-04	9.783E-04	0.000E+00	4.113E+00
243	0.000E+00	0.000E+00	1.101E-02	0.000E+00	1.280E-02	3.978E-04	1.255E-04	9.512E-04	0.000E+00	4.212E+00
244	0.000E+00	0.000E+00	1.370E-02	0.000E+00	1.589E-02	4.832E-04	1.558E-04	1.182E-03	0.000E+00	4.310E+00
245	0.000E+00	0.000E+00	1.552E-02	0.000E+00	1.804E-02	5.684E-04	1.769E-04	1.340E-03	0.000E+00	4.373E+00
246	0.000E+00	0.000E+00	9.572E-03	0.000E+00	1.110E-02	3.634E-04	1.091E-04	8.265E-04	0.000E+00	8.690E+00
247	0.000E+00	0.000E+00	1.164E-02	0.000E+00	1.348E-02	4.125E-04	1.323E-04	1.004E-03	0.000E+00	8.702E+00
248	0.000E+00	0.000E+00	1.165E-02	0.000E+00	1.348E-02	4.078E-04	1.323E-04	1.005E-03	0.000E+00	9.010E+00
249	0.000E+00	0.000E+00	9.642E-03	0.000E+00	1.117E-02	3.528E-04	1.097E-04	8.322E-04	0.000E+00	9.444E+00
250	0.000E+00	0.000E+00	1.266E-02	0.000E+00	1.468E-02	4.434E-04	1.439E-04	1.093E-03	0.000E+00	9.408E+00
251	0.000E+00	0.000E+00	1.112E-02	0.000E+00	1.292E-02	4.680E-04	1.273E-04	9.614E-04	0.000E+00	9.054E+00
252	0.000E+00	0.000E+00	1.540E-02	0.000E+00	1.787E-02	5.657E-04	1.754E-04	1.329E-03	0.000E+00	8.124E+00
253	0.000E+00	0.000E+00	1.473E-02	0.000E+00	1.710E-02	5.171E-04	1.676E-04	1.271E-03	0.000E+00	7.893E+00
254	0.000E+00	0.000E+00	1.614E-02	0.000E+00	1.876E-02	5.667E-04	1.837E-04	1.393E-03	0.000E+00	7.717E+00
255	0.000E+00	0.000E+00	1.590E-02	0.000E+00	1.846E-02	5.925E-04	1.812E-04	1.372E-03	0.000E+00	7.699E+00
256	0.000E+00	0.000E+00	1.430E-02	0.000E+00	1.661E-02	5.704E-04	1.629E-04	1.234E-03	0.000E+00	6.883E+00
257	0.000E+00	0.000E+00	1.654E-02	0.000E+00	1.897E-02	5.997E-04	1.872E-04	1.427E-03	0.000E+00	6.172E+00
258	0.000E+00	0.000E+00	1.018E-02	0.000E+00	1.174E-02	3.561E-04	1.154E-04	8.783E-04	0.000E+00	5.338E+00
259	0.000E+00	0.000E+00	1.035E-02	0.000E+00	1.202E-02	3.917E-04	1.180E-04	8.936E-04	0.000E+00	4.687E+00
260	0.000E+00	0.000E+00	1.161E-02	0.000E+00	1.353E-02	4.293E-04	1.326E-04	1.003E-03	0.000E+00	4.304E+00
261	0.000E+00	0.000E+00	1.127E-02	0.000E+00	1.313E-02	4.424E-04	1.289E-04	9.736E-04	0.000E+00	4.410E+00
262	0.000E+00	0.000E+00	1.595E-02	0.000E+00	1.851E-02	5.605E-04	1.814E-04	1.377E-03	0.000E+00	4.526E+00
263	0.000E+00	0.000E+00	1.708E-02	0.000E+00	1.986E-02	6.226E-04	1.946E-04	1.475E-03	0.000E+00	4.606E+00
264	0.000E+00	0.000E+00	2.005E-02	0.000E+00	2.336E-02	7.172E-04	2.286E-04	1.731E-03	0.000E+00	4.711E+00
265	0.000E+00	0.000E+00	1.219E-02	0.000E+00	1.411E-02	4.358E-04	1.385E-04	1.052E-03	0.000E+00	8.684E+00
266	0.000E+00	0.000E+00	1.104E-02	0.000E+00	1.276E-02	4.169E-04	1.253E-04	9.524E-04	0.000E+00	9.416E+00
267	0.000E+00	0.000E+00	1.093E-02	0.000E+00	1.267E-02	3.924E-04	1.244E-04	9.437E-04	0.000E+00	9.580E+00
268	0.000E+00	0.000E+00	1.308E-02	0.000E+00	1.516E-02	4.579E-04	1.487E-04	1.129E-03	0.000E+00	9.932E+00
269	0.000E+00	0.000E+00	1.072E-02	0.000E+00	1.240E-02	3.752E-04	1.217E-04	9.254E-04	0.000E+00	1.020E+01
270	0.000E+00	0.000E+00	1.360E-02	0.000E+00	1.578E-02	4.759E-04	1.547E-04	1.174E-03	0.000E+00	1.029E+01
271	0.000E+00	0.000E+00	1.208E-02	0.000E+00	1.401E-02	4.892E-04	1.380E-04	1.043E-03	0.000E+00	9.495E+00
272	0.000E+00	0.000E+00	1.753E-02	0.000E+00	2.037E-02	6.216E-04	1.996E-04	1.513E-03	0.000E+00	8.851E+00
273	0.000E+00	0.000E+00	1.741E-02	0.000E+00	2.021E-02	6.093E-04	1.980E-04	1.503E-03	0.000E+00	8.829E+00
274	0.000E+00	0.000E+00	1.542E-02	0.000E+00	1.792E-02	1.194E-03	1.755E-04	1.331E-03	0.000E+00	8.586E+00
275	0.000E+00	0.000E+00	1.483E-02	0.000E+00	1.722E-02	5.409E-04	1.689E-04	1.280E-03	0.000E+00	7.449E+00
276	0.000E+00	0.000E+00	1.558E-02	0.000E+00	1.776E-02	5.561E-04	1.757E-04	1.344E-03	0.000E+00	6.293E+00

277	0.000E+00	0.000E+00	1.057E-02	0.000E+00	1.226E-02	3.769E-04	1.202E-04	9.125E-04	0.000E+00	5.359E+00
278	0.000E+00	0.000E+00	1.267E-02	0.000E+00	1.476E-02	4.572E-04	1.445E-04	1.094E-03	0.000E+00	4.644E+00
279	0.000E+00	0.000E+00	1.320E-02	0.000E+00	1.539E-02	5.082E-04	1.509E-04	1.140E-03	0.000E+00	4.643E+00
280	0.000E+00	0.000E+00	1.899E-02	0.000E+00	2.204E-02	6.657E-04	2.160E-04	1.639E-03	0.000E+00	4.781E+00
281	0.000E+00	0.000E+00	1.865E-02	0.000E+00	2.168E-02	6.760E-04	2.125E-04	1.610E-03	0.000E+00	4.916E+00
282	0.000E+00	0.000E+00	2.244E-02	0.000E+00	2.617E-02	8.076E-04	2.561E-04	1.938E-03	0.000E+00	5.035E+00
283	0.000E+00	0.000E+00	1.973E-02	0.000E+00	2.299E-02	7.106E-04	2.249E-04	1.703E-03	0.000E+00	5.195E+00
284	0.000E+00	0.000E+00	1.253E-02	0.000E+00	1.455E-02	4.752E-04	1.429E-04	1.082E-03	0.000E+00	8.808E+00
285	0.000E+00	0.000E+00	1.335E-02	0.000E+00	1.548E-02	4.856E-04	1.519E-04	1.152E-03	0.000E+00	9.540E+00
286	0.000E+00	0.000E+00	1.356E-02	0.000E+00	1.570E-02	5.023E-04	1.541E-04	1.170E-03	0.000E+00	9.952E+00
287	0.000E+00	0.000E+00	1.247E-02	0.000E+00	1.443E-02	4.370E-04	1.416E-04	1.076E-03	0.000E+00	1.051E+01
288	0.000E+00	0.000E+00	1.321E-02	0.000E+00	1.531E-02	4.625E-04	1.501E-04	1.140E-03	0.000E+00	1.127E+01
289	0.000E+00	0.000E+00	1.373E-02	0.000E+00	1.590E-02	4.802E-04	1.560E-04	1.185E-03	0.000E+00	1.191E+01
290	0.000E+00	0.000E+00	1.457E-02	0.000E+00	1.692E-02	5.095E-04	1.657E-04	1.257E-03	0.000E+00	1.147E+01
291	0.000E+00	0.000E+00	1.399E-02	0.000E+00	1.622E-02	5.249E-04	1.594E-04	1.208E-03	0.000E+00	9.772E+00
292	0.000E+00	0.000E+00	2.799E-02	0.000E+00	3.206E-02	1.246E-03	3.188E-04	2.421E-03	0.000E+00	1.020E+01
293	0.000E+00	0.000E+00	1.799E-02	0.000E+00	2.084E-02	6.292E-04	2.044E-04	1.552E-03	0.000E+00	9.681E+00
294	0.000E+00	0.000E+00	2.332E-02	0.000E+00	2.722E-02	8.497E-04	2.663E-04	2.015E-03	0.000E+00	5.426E+00
295	0.000E+00	0.000E+00	2.272E-02	0.000E+00	2.650E-02	8.106E-04	2.592E-04	1.962E-03	0.000E+00	5.645E+00
296	0.000E+00	0.000E+00	1.912E-02	0.000E+00	2.225E-02	7.424E-04	2.184E-04	1.652E-03	0.000E+00	5.768E+00
297	0.000E+00	0.000E+00	1.007E-02	0.000E+00	1.174E-02	5.647E-04	1.154E-04	8.705E-04	0.000E+00	8.265E+00
298	0.000E+00	0.000E+00	1.150E-02	0.000E+00	1.339E-02	5.492E-04	1.316E-04	9.940E-04	0.000E+00	9.784E+00
299	0.000E+00	0.000E+00	1.283E-02	0.000E+00	1.489E-02	6.270E-04	1.463E-04	1.108E-03	0.000E+00	1.035E+01
300	0.000E+00	0.000E+00	1.423E-02	0.000E+00	1.651E-02	5.111E-04	1.619E-04	1.229E-03	0.000E+00	1.102E+01
301	0.000E+00	0.000E+00	1.530E-02	0.000E+00	1.774E-02	5.372E-04	1.740E-04	1.321E-03	0.000E+00	1.172E+01
302	0.000E+00	0.000E+00	1.451E-02	0.000E+00	1.680E-02	5.074E-04	1.648E-04	1.252E-03	0.000E+00	1.296E+01
303	0.000E+00	0.000E+00	1.592E-02	0.000E+00	1.846E-02	5.567E-04	1.810E-04	1.374E-03	0.000E+00	1.400E+01
304	0.000E+00	0.000E+00	1.550E-02	0.000E+00	1.800E-02	5.420E-04	1.763E-04	1.337E-03	0.000E+00	1.203E+01
305	0.000E+00	0.000E+00	1.803E-02	0.000E+00	2.092E-02	6.363E-04	2.051E-04	1.556E-03	0.000E+00	1.200E+01
306	0.000E+00	0.000E+00	2.163E-02	0.000E+00	2.521E-02	7.959E-04	2.469E-04	1.868E-03	0.000E+00	6.167E+00
307	0.000E+00	0.000E+00	1.837E-02	0.000E+00	2.141E-02	6.819E-04	2.094E-04	1.586E-03	0.000E+00	6.403E+00
308	0.000E+00	0.000E+00	1.650E-02	0.000E+00	1.917E-02	6.259E-04	1.882E-04	1.425E-03	0.000E+00	6.459E+00
309	0.000E+00	0.000E+00	7.049E-03	0.000E+00	8.128E-03	7.211E-04	7.992E-05	6.082E-04	0.000E+00	8.925E+00
310	0.000E+00	0.000E+00	8.334E-03	0.000E+00	9.753E-03	5.936E-04	9.588E-05	7.212E-04	0.000E+00	9.581E+00
311	0.000E+00	0.000E+00	1.002E-02	0.000E+00	1.170E-02	8.004E-04	1.151E-04	8.669E-04	0.000E+00	9.921E+00
312	0.000E+00	0.000E+00	1.124E-02	0.000E+00	1.308E-02	5.674E-04	1.287E-04	9.712E-04	0.000E+00	1.140E+01
313	0.000E+00	0.000E+00	1.253E-02	0.000E+00	1.454E-02	4.719E-04	1.428E-04	1.082E-03	0.000E+00	1.238E+01
314	0.000E+00	0.000E+00	1.478E-02	0.000E+00	1.713E-02	5.222E-04	1.680E-04	1.275E-03	0.000E+00	1.368E+01
315	0.000E+00	0.000E+00	1.747E-02	0.000E+00	2.027E-02	6.111E-04	1.987E-04	1.508E-03	0.000E+00	1.563E+01
316	0.000E+00	0.000E+00	1.743E-02	0.000E+00	2.021E-02	6.096E-04	1.982E-04	1.504E-03	0.000E+00	1.676E+01
317	0.000E+00	0.000E+00	1.825E-02	0.000E+00	2.108E-02	6.385E-04	2.071E-04	1.575E-03	0.000E+00	1.499E+01
318	0.000E+00	0.000E+00	1.641E-02	0.000E+00	1.905E-02	6.193E-04	1.871E-04	1.418E-03	0.000E+00	7.241E+00
319	0.000E+00	0.000E+00	1.415E-02	0.000E+00	1.640E-02	6.101E-04	1.619E-04	1.224E-03	0.000E+00	7.275E+00
320	0.000E+00	0.000E+00	1.030E-02	0.000E+00	1.194E-02	4.725E-04	1.182E-04	8.911E-04	0.000E+00	7.543E+00
321	0.000E+00	0.000E+00	1.407E-02	0.000E+00	1.614E-02	8.464E-04	1.591E-04	1.214E-03	0.000E+00	8.507E+00
322	0.000E+00	0.000E+00	1.429E-02	0.000E+00	1.638E-02	8.461E-04	1.616E-04	1.233E-03	0.000E+00	9.401E+00
323	0.000E+00	0.000E+00	1.450E-02	0.000E+00	1.661E-02	7.525E-04	1.639E-04	1.251E-03	0.000E+00	1.036E+01
324	0.000E+00	0.000E+00	1.468E-02	0.000E+00	1.681E-02	6.044E-04	1.659E-04	1.266E-03	0.000E+00	1.087E+01
325	0.000E+00	0.000E+00	1.479E-02	0.000E+00	1.693E-02	5.177E-04	1.671E-04	1.276E-03	0.000E+00	1.242E+01
326	0.000E+00	0.000E+00	1.528E-02	0.000E+00	1.768E-02	5.346E-04	1.736E-04	1.319E-03	0.000E+00	1.443E+01
327	0.000E+00	0.000E+00	1.813E-02	0.000E+00	2.098E-02	6.341E-04	2.059E-04	1.564E-03	0.000E+00	1.657E+01
328	0.000E+00	0.000E+00	2.076E-02	0.000E+00	2.404E-02	7.263E-04	2.359E-04	1.792E-03	0.000E+00	2.240E+01
329	0.000E+00	0.000E+00	2.321E-02	0.000E+00	2.689E-02	8.117E-04	2.637E-04	2.003E-03	0.000E+00	2.231E+01
330	0.000E+00	0.000E+00	1.156E-02	0.000E+00	1.342E-02	4.874E-04	1.315E-04	9.977E-04	0.000E+00	8.794E+00
331	0.000E+00	0.000E+00	1.132E-02	0.000E+00	1.311E-02	3.971E-04	1.286E-04	9.770E-04	0.000E+00	8.920E+00
332	0.000E+00	0.000E+00	1.146E-02	0.000E+00	1.327E-02	4.063E-04	1.302E-04	9.889E-04	0.000E+00	8.468E+00
333	0.000E+00	0.000E+00	3.825E-02	0.000E+00	4.432E-02	1.338E-03	4.347E-04	3.300E-03	0.000E+00	8.282E+00
334	0.000E+00	0.000E+00	3.998E-02	0.000E+00	4.636E-02	1.399E-03	4.545E-04	3.450E-03	0.000E+00	8.885E+00
335	0.000E+00	0.000E+00	4.182E-02	0.000E+00	4.850E-02	1.463E-03	4.755E-04	3.609E-03	0.000E+00	9.650E+00
336	0.000E+00	0.000E+00	4.371E-02	0.000E+00	5.071E-02	1.529E-03	4.970E-04	3.772E-03	0.000E+00	1.072E+01
337	0.000E+00	0.000E+00	4.554E-02	0.000E+00	5.286E-02	1.593E-03	5.180E-04	3.930E-03	0.000E+00	1.236E+01
338	0.000E+00	0.000E+00	4.707E-02	0.000E+00	5.465E-02	1.646E-03	5.354E-04	4.062E-03	0.000E+00	1.481E+01
339	0.000E+00	0.000E+00	4.777E-02	0.000E+00	5.546E-02	1.671E-03	5.434E-04	4.122E-03	0.000E+00	1.748E+01
340	0.000E+00	0.000E+00	4.639E-02	0.000E+00	5.383E-02	1.623E-03	5.276E-04	4.003E-03	0.000E+00	2.313E+01
341	0.000E+00	0.000E+00	1.111E-02	0.000E+00	1.277E-02	1.343E-03	1.257E-04	9.583E-04	0.000E+00	1.086E+01
342	0.000E+00	0.000E+00	1.275E-02	0.000E+00	1.478E-02	4.589E-04	1.451E-04	1.101E-03	0.000E+00	1.127E+01
343	0.000E+00	0.000E+00	1.299E-02	0.000E+00	1.508E-02	4.967E-04	1.482E-04	1.123E-03	0.000E+00	1.106E+01
344	0.000E+00	0.000E+00	1.203E-02	0.000E+00	1.398E-02	4.924E-04	1.376E-04	1.040E-03	0.000E+00	1.021E+01
345	0.000E+00	0.000E+00	1.049E-02	0.000E+00	1.220E-02	4.530E-04	1.203E-04	9.077E-04	0.000E+00	9.505E+00
346	0.000E+00	0.000E+00	4.491E-02	0.000E+00	5.204E-02	1.701E-03	5.116E-04	3.876E-03	0.000E+00	8.474E+00
347	0.000E+00	0.000E+00	4.528E-02	0.000E+00	5.245E-02	1.729E-03	5.159E-04	3.907E-03	0.000E+00	8.832E+00
348	0.000E+00	0.000E+00	4.557E-02	0.000E+00	5.277E-02	1.638E-03	5.182E-04	3.933E-03	0.000E+00	8.582E+00
349	0.000E+00	0.000E+00	4.588E-02	0.000E+00	5.312E-02	1.638E-03	5.214E-04	3.959E-03	0.000E+00	8.059E+00
350	0.000E+00	0.000E+00	4.636E-02	0.000E+00	5.366E-02	1.642E-03	5.267E-04	4.000E-03	0.000E+00	1.127E+01
351	0.000E+00	0.000E+00	4.725E-02	0.000E+00	5.470E-02	1.662E-03	5.368E-04	4.077E-03	0.000E+00	1.294E+01
352	0.000E+00	0.000E+00	4.881E-02	0.000E+00	5.650E-02	1.709E-03	5.544E-04	4.212E-03	0.000E+00	1.469E+01
353	0.000E+00	0.000E+00	5.095E-02	0.000E+00	5.891E-02	1.782E-03	5.784E-04	4.397E-03	0.000E+00	2.185E+01
354	0.000E+00	0.000E+00	1.124E-02	0.000E+00	1.298E-02	4.460E-04	1.280E-04	9.711E-04	0.000E+00	1.568E+01
355	0.000E+00	0.000E+00	9.319E-03	0.000E+00	1.082E-02	3.812E-04	1.065E-04	8.055E-04	0.000E+00	1.386E+01
356	0.000E+00	0.000E+00	8.385E-03	0.000E+00	9.757E-03	3.480E-04	9.601E-05	7.250E-04	0.000E+00	1.269E+01
357	0.000E+00	0.000E+00	7.736E-03	0.000E+00	9.009E-03	3.225E-04	8.863E-05	6.689E-04	0.000E+00	1.152E+01
358	0.000E+00	0.000E+00	7.220E-03	0.000E+00	8.409E-03	3.008E-04	8.272E-05	6.242E-04	0.000E+00	1.059E+01
359	0.000E+00	0.000E+00	3.557E-02	0.000E+00	4.150E-02	1.374E-03	4.069E-04	3.070E-03	0.000E+00	8.613E+00
360	0.000E+00	0.000E+00	3.554E-02	0.000E+00	4.150E-02	1.388E-03	4.068E-04	3.068E-03	0.000E+00	9.352E+00
361	0.000E+00	0.000E+00	3.540E-02	0.000E+00	4.138E-02	1.666E-03	4.081E-04	3.056E-03	0.000E+00	1.013E+01
362	0.000E+00	0.000E+00	3.510E-02	0.000E+00	4.107E-02	1.709E-03	4.054E-04	3.030E-03	0.000E+00	1.098E+01
363	0.000E+00	0.000E+00	3.458E-02	0.000E+00	4.051E-02	1.753E-03	4.003E-04	2.985E-03	0.000E+00	1.198E+01
364	0.000E+00	0.000E+00	3.393E-02	0.000E+00	3.981E-02	1.789E-03	3.937E-04	2.929E-03	0.000E+00	1.332E+01
365	0.000E+00	0.000E+00	3.329E-02	0.000E+00	3.911E-02	1.776E-03	3.867E-04	2.874E-03	0.000E+00	1.526E+01
366	0.000E+00	0.000E+00	3.252E-02	0.000E+00	3.827E-02	1.591E-03	3.768E-04	2.808E-03	0.000E+00	1.819E+01
367	0.000E+00	0.000E+00	3.310E-02	0.000E+00	3.898E-02	1.260E-03	3.801E-04	2.857E-03	0.000E+00	2.401E+01
368	0.000E+00	0.000E+00	2.748E-02	0.000E+00	3.195E-02	9.610E-04	3.128E-04	2.371E-03	0.000E+00	3.271E+01
369	0.000E+00	0.000E+00	1.464E-02	0.000E+00	1.672E-02	5.122E-04	1.651E-04	1.263E-03	0.000E+00	2.132E+01
370	0.000E+00	0.000E+00	8.654E-03	0.000E+00	1.007E-02	3.307E-04	9.884E-05	7.475E-04	0.000E+00	1.713E+01
371	0.000E+00	0.000E+00	1.010E-02	0.000E+00	1.162E-02	3.533E-04	1.143E-04	8.712E-04	0.000E+00	1.473E+01
372	0.000E+00	0.000E+00	9.321E-03	0.000E+00	1.072E-02	3.310E-04	1.055E-04	8.042E-04	0.000E+00	1.315E+01
373	0.000E+00	0.000E+00	8.562E-03	0.000E+00	9.932E-03	3.106E-04	9.746E-05	7.391E-04	0.000E+00	1.195E+01

374	0.000E+00	0.000E+00	7.852E-03	0.000E+00	9.102E-03	2.836E-04	8.934E-05	6.778E-04	0.000E+00	1.093E+01
375	0.000E+00	0.000E+00	1.016E-02	0.000E+00	1.180E-02	4.160E-04	1.159E-04	8.772E-04	0.000E+00	6.777E+00
376	0.000E+00	0.000E+00	1.094E-02	0.000E+00	1.272E-02	4.146E-04	1.248E-04	9.447E-04	0.000E+00	6.794E+00
377	0.000E+00	0.000E+00	1.141E-02	0.000E+00	1.327E-02	1.210E-03	1.303E-04	9.858E-04	0.000E+00	6.698E+00
378	0.000E+00	0.000E+00	1.143E-02	0.000E+00	1.330E-02	1.274E-03	1.307E-04	9.879E-04	0.000E+00	7.931E+00
379	0.000E+00	0.000E+00	1.070E-02	0.000E+00	1.246E-02	1.180E-03	1.226E-04	9.257E-04	0.000E+00	1.085E+01
380	0.000E+00	0.000E+00	1.014E-02	0.000E+00	1.170E-02	4.935E-04	1.154E-04	8.765E-04	0.000E+00	1.320E+01
381	0.000E+00	0.000E+00	1.418E-02	0.000E+00	1.654E-02	6.455E-04	1.617E-04	1.224E-03	0.000E+00	1.523E+01
382	0.000E+00	0.000E+00	1.636E-02	0.000E+00	1.911E-02	5.915E-04	1.868E-04	1.413E-03	0.000E+00	1.824E+01
383	0.000E+00	0.000E+00	4.299E-02	0.000E+00	5.022E-02	1.503E-03	4.906E-04	3.711E-03	0.000E+00	2.334E+01
384	0.000E+00	0.000E+00	5.169E-02	0.000E+00	6.028E-02	1.811E-03	5.894E-04	4.462E-03	0.000E+00	2.541E+01
385	0.000E+00	0.000E+00	4.455E-02	0.000E+00	5.178E-02	1.561E-03	5.071E-04	3.845E-03	0.000E+00	3.226E+01
386	0.000E+00	0.000E+00	3.188E-02	0.000E+00	3.706E-02	1.115E-03	3.629E-04	2.751E-03	0.000E+00	3.139E+01
387	0.000E+00	0.000E+00	1.972E-02	0.000E+00	2.294E-02	6.898E-04	2.245E-04	1.702E-03	0.000E+00	3.157E+01
388	0.000E+00	0.000E+00	1.755E-02	0.000E+00	2.028E-02	6.141E-04	1.992E-04	1.515E-03	0.000E+00	2.155E+01
389	0.000E+00	0.000E+00	1.871E-02	0.000E+00	2.164E-02	6.545E-04	2.124E-04	1.614E-03	0.000E+00	1.711E+01
390	0.000E+00	0.000E+00	6.328E-03	0.000E+00	7.197E-03	2.437E-04	7.124E-05	5.458E-04	0.000E+00	1.465E+01
391	0.000E+00	0.000E+00	6.460E-03	0.000E+00	7.538E-03	2.673E-04	7.406E-05	5.585E-04	0.000E+00	1.274E+01
392	0.000E+00	0.000E+00	7.128E-03	0.000E+00	8.303E-03	2.824E-04	8.153E-05	6.159E-04	0.000E+00	1.149E+01
393	0.000E+00	0.000E+00	7.437E-03	0.000E+00	8.651E-03	2.867E-04	8.493E-05	6.424E-04	0.000E+00	1.084E+01
394	0.000E+00	0.000E+00	9.348E-03	0.000E+00	1.088E-02	3.552E-04	1.067E-04	8.079E-04	0.000E+00	8.299E+00
395	0.000E+00	0.000E+00	8.532E-03	0.000E+00	9.936E-03	3.448E-04	9.750E-05	7.377E-04	0.000E+00	8.454E+00
396	0.000E+00	0.000E+00	7.704E-03	0.000E+00	8.934E-03	7.305E-04	8.790E-05	6.656E-04	0.000E+00	9.625E+00
397	0.000E+00	0.000E+00	8.792E-03	0.000E+00	1.020E-02	1.327E-03	1.004E-04	7.600E-04	0.000E+00	1.038E+01
398	0.000E+00	0.000E+00	9.509E-03	0.000E+00	1.108E-02	1.058E-03	1.084E-04	8.211E-04	0.000E+00	9.173E+00
399	0.000E+00	0.000E+00	1.403E-02	0.000E+00	1.637E-02	9.251E-04	1.601E-04	1.212E-03	0.000E+00	1.207E+01
400	0.000E+00	0.000E+00	1.243E-02	0.000E+00	1.450E-02	4.981E-04	1.423E-04	1.075E-03	0.000E+00	1.276E+01
401	0.000E+00	0.000E+00	1.949E-02	0.000E+00	2.268E-02	6.818E-04	2.220E-04	1.682E-03	0.000E+00	1.283E+01
402	0.000E+00	0.000E+00	4.208E-02	0.000E+00	4.898E-02	1.472E-03	4.793E-04	3.631E-03	0.000E+00	1.192E+01
403	0.000E+00	0.000E+00	5.142E-02	0.000E+00	5.997E-02	2.140E-03	5.886E-04	4.438E-03	0.000E+00	1.202E+01
404	0.000E+00	0.000E+00	3.942E-02	0.000E+00	4.577E-02	1.401E-03	4.486E-04	3.402E-03	0.000E+00	1.737E+01
405	0.000E+00	0.000E+00	2.748E-02	0.000E+00	3.196E-02	9.611E-04	3.129E-04	2.372E-03	0.000E+00	1.853E+01
406	0.000E+00	0.000E+00	1.620E-02	0.000E+00	1.881E-02	5.665E-04	1.843E-04	1.398E-03	0.000E+00	1.776E+01
407	0.000E+00	0.000E+00	1.528E-02	0.000E+00	1.776E-02	5.345E-04	1.739E-04	1.319E-03	0.000E+00	1.720E+01
408	0.000E+00	0.000E+00	1.542E-02	0.000E+00	1.785E-02	5.394E-04	1.751E-04	1.331E-03	0.000E+00	1.701E+01
409	0.000E+00	0.000E+00	1.628E-02	0.000E+00	1.885E-02	5.695E-04	1.849E-04	1.405E-03	0.000E+00	1.446E+01
410	0.000E+00	0.000E+00	5.634E-03	0.000E+00	6.435E-03	1.972E-04	6.356E-05	4.860E-04	0.000E+00	1.271E+01
411	0.000E+00	0.000E+00	5.721E-03	0.000E+00	6.540E-03	2.002E-04	6.458E-05	4.935E-04	0.000E+00	1.167E+01
412	0.000E+00	0.000E+00	5.611E-03	0.000E+00	6.498E-03	2.068E-04	6.375E-05	4.842E-04	0.000E+00	1.050E+01
413	0.000E+00	0.000E+00	1.274E-02	0.000E+00	1.485E-02	1.364E-03	1.455E-04	1.100E-03	0.000E+00	9.642E+00
414	0.000E+00	0.000E+00	8.328E-03	0.000E+00	9.691E-03	1.238E-03	9.543E-05	7.201E-04	0.000E+00	7.932E+00
415	0.000E+00	0.000E+00	8.770E-03	0.000E+00	9.898E-03	1.044E-03	9.899E-05	7.588E-04	0.000E+00	6.655E+00
416	0.000E+00	0.000E+00	1.001E-02	0.000E+00	1.166E-02	7.637E-04	1.147E-04	8.657E-04	0.000E+00	9.259E+00
417	0.000E+00	0.000E+00	6.743E-03	0.000E+00	7.459E-03	8.374E-04	7.557E-05	5.838E-04	0.000E+00	7.495E+00
418	0.000E+00	0.000E+00	1.122E-02	0.000E+00	1.303E-02	8.763E-04	1.277E-04	9.686E-04	0.000E+00	6.566E+00
419	0.000E+00	0.000E+00	8.372E-03	0.000E+00	9.681E-03	6.925E-04	9.507E-05	7.224E-04	0.000E+00	9.180E+00
420	0.000E+00	0.000E+00	2.030E-02	0.000E+00	2.346E-02	8.159E-04	2.305E-04	1.752E-03	0.000E+00	7.436E+00
421	0.000E+00	0.000E+00	3.202E-02	0.000E+00	3.724E-02	1.158E-03	3.649E-04	2.765E-03	0.000E+00	6.928E+00
422	0.000E+00	0.000E+00	3.394E-02	0.000E+00	3.936E-02	1.190E-03	3.859E-04	2.930E-03	0.000E+00	9.765E+00
423	0.000E+00	0.000E+00	3.215E-02	0.000E+00	3.741E-02	1.312E-03	3.679E-04	2.779E-03	0.000E+00	8.290E+00
424	0.000E+00	0.000E+00	3.113E-02	0.000E+00	3.621E-02	1.091E-03	3.545E-04	2.688E-03	0.000E+00	7.449E+00
425	0.000E+00	0.000E+00	4.632E-02	0.000E+00	5.405E-02	1.624E-03	5.283E-04	4.003E-03	0.000E+00	1.004E+01
426	0.000E+00	0.000E+00	4.449E-02	0.000E+00	5.192E-02	1.692E-03	5.087E-04	3.851E-03	0.000E+00	8.729E+00
427	0.000E+00	0.000E+00	4.231E-02	0.000E+00	4.930E-02	1.767E-03	4.830E-04	3.652E-03	0.000E+00	7.742E+00
428	0.000E+00	0.000E+00	5.002E-02	0.000E+00	5.831E-02	2.214E-03	5.745E-04	4.317E-03	0.000E+00	1.005E+01
429	0.000E+00	0.000E+00	4.773E-02	0.000E+00	5.560E-02	2.122E-03	5.481E-04	4.120E-03	0.000E+00	8.755E+00
430	0.000E+00	0.000E+00	4.523E-02	0.000E+00	5.265E-02	1.960E-03	5.187E-04	3.903E-03	0.000E+00	7.929E+00
431	0.000E+00	0.000E+00	3.679E-02	0.000E+00	4.271E-02	1.321E-03	4.188E-04	3.175E-03	0.000E+00	1.110E+01
432	0.000E+00	0.000E+00	3.487E-02	0.000E+00	4.048E-02	1.257E-03	3.970E-04	3.009E-03	0.000E+00	8.533E+00
433	0.000E+00	0.000E+00	3.272E-02	0.000E+00	3.799E-02	1.182E-03	3.726E-04	2.824E-03	0.000E+00	7.705E+00
434	0.000E+00	0.000E+00	2.278E-02	0.000E+00	2.645E-02	7.968E-04	2.591E-04	1.966E-03	0.000E+00	1.422E+01
435	0.000E+00	0.000E+00	1.890E-02	0.000E+00	2.189E-02	6.612E-04	2.147E-04	1.631E-03	0.000E+00	1.126E+01
436	0.000E+00	0.000E+00	1.590E-02	0.000E+00	1.837E-02	5.562E-04	1.804E-04	1.372E-03	0.000E+00	8.968E+00
437	0.000E+00	0.000E+00	1.535E-02	0.000E+00	1.783E-02	5.370E-04	1.747E-04	1.325E-03	0.000E+00	1.450E+01
438	0.000E+00	0.000E+00	1.307E-02	0.000E+00	1.515E-02	4.690E-04	1.487E-04	1.128E-03	0.000E+00	1.171E+01
439	0.000E+00	0.000E+00	1.056E-02	0.000E+00	1.224E-02	4.682E-04	1.209E-04	9.117E-04	0.000E+00	1.035E+01
440	0.000E+00	0.000E+00	1.374E-02	0.000E+00	1.596E-02	4.806E-04	1.563E-04	1.186E-03	0.000E+00	1.359E+01
441	0.000E+00	0.000E+00	1.580E-02	0.000E+00	1.836E-02	5.524E-04	1.798E-04	1.363E-03	0.000E+00	1.218E+01
442	0.000E+00	0.000E+00	1.554E-02	0.000E+00	1.805E-02	5.438E-04	1.768E-04	1.341E-03	0.000E+00	1.021E+01
443	0.000E+00	0.000E+00	1.300E-02	0.000E+00	1.511E-02	5.659E-04	1.480E-04	1.122E-03	0.000E+00	1.380E+01
444	0.000E+00	0.000E+00	1.262E-02	0.000E+00	1.467E-02	5.611E-04	1.437E-04	1.089E-03	0.000E+00	1.167E+01
445	0.000E+00	0.000E+00	1.072E-02	0.000E+00	1.244E-02	3.767E-04	1.219E-04	9.254E-04	0.000E+00	1.048E+01
446	0.000E+00	0.000E+00	1.110E-02	0.000E+00	1.281E-02	3.886E-04	1.259E-04	9.580E-04	0.000E+00	1.314E+01
447	0.000E+00	0.000E+00	1.154E-02	0.000E+00	1.340E-02	4.046E-04	1.313E-04	9.961E-04	0.000E+00	1.151E+01
448	0.000E+00	0.000E+00	1.070E-02	0.000E+00	1.242E-02	3.877E-04	1.219E-04	9.236E-04	0.000E+00	1.035E+01
449	0.000E+00	0.000E+00	1.402E-02	0.000E+00	1.624E-02	4.905E-04	1.593E-04	1.210E-03	0.000E+00	1.281E+01
450	0.000E+00	0.000E+00	1.183E-02	0.000E+00	1.370E-02	4.143E-04	1.344E-04	1.021E-03	0.000E+00	1.140E+01
451	0.000E+00	0.000E+00	9.786E-03	0.000E+00	1.135E-02	3.435E-04	1.113E-04	8.445E-04	0.000E+00	1.045E+01

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** PREDICTED PEAK 1-HOUR CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	Pb	Mn	Hg	Ni	NAPTH	PAH	PROPL	Se	TOL	XYLEN

1	8.390E-03	2.220E-02	0.000E+00	7.363E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2	6.265E-03	1.656E-02	0.000E+00	5.499E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	6.389E-03	1.689E-02	0.000E+00	5.608E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	1.082E-02	2.861E-02	0.000E+00	9.492E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	1.047E-02	2.769E-02	0.000E+00	9.185E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6	1.021E-02	2.699E-02	0.000E+00	8.954E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7	7.966E-03	2.104E-02	0.000E+00	6.989E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8	7.705E-03	2.037E-02	0.000E+00	6.763E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9	8.062E-03	2.131E-02	0.000E+00	7.077E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
10	1.222E-02	3.236E-02	0.000E+00	1.073E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
11	7.018E-03	1.855E-02	0.000E+00	6.154E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
12	1.632E-02	4.313E-02	0.000E+00	1.431E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
13	3.257E-02	8.607E-02	0.000E+00	2.856E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
14	3.359E-02	8.874E-02	0.000E+00	2.944E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
15	3.399E-02	8.979E-02	0.000E+00	2.979E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
16	3.452E-02	9.116E-02	0.000E+00	3.025E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
17	1.159E-02	3.066E-02	0.000E+00	1.017E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
18	9.096E-03	2.405E-02	0.000E+00	7.978E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
19	1.024E-02	2.709E-02	0.000E+00	8.985E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
20	1.054E-02	2.787E-02	0.000E+00	9.244E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
21	2.532E-02	6.737E-02	0.000E+00	2.232E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
22	2.356E-02	6.262E-02	0.000E+00	2.075E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
23	2.772E-02	7.347E-02	0.000E+00	2.436E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
24	3.612E-02	9.570E-02	0.000E+00	3.173E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
25	3.793E-02	1.005E-01	0.000E+00	3.332E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
26	3.362E-02	8.888E-02	0.000E+00	2.948E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
27	2.557E-02	6.735E-02	0.000E+00	2.236E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
28	2.597E-02	6.871E-02	0.000E+00	2.279E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
29	4.021E-02	1.064E-01	0.000E+00	3.530E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
30	4.601E-02	1.217E-01	0.000E+00	4.036E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
31	4.404E-02	1.164E-01	0.000E+00	3.861E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
32	3.654E-02	9.652E-02	0.000E+00	3.202E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
33	3.450E-02	9.110E-02	0.000E+00	3.023E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
34	3.480E-02	9.194E-02	0.000E+00	3.050E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
35	2.379E-02	6.295E-02	0.000E+00	2.088E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
36	1.960E-02	5.184E-02	0.000E+00	1.720E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
37	2.138E-02	5.652E-02	0.000E+00	1.875E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
38	1.087E-02	2.876E-02	0.000E+00	9.538E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
39	1.172E-02	3.101E-02	0.000E+00	1.028E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
40	1.270E-02	3.362E-02	0.000E+00	1.115E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
41	1.631E-02	4.319E-02	0.000E+00	1.432E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
42	1.684E-02	4.467E-02	0.000E+00	1.481E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
43	8.862E-03	2.357E-02	0.000E+00	7.808E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
44	6.410E-03	1.690E-02	0.000E+00	5.632E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
45	7.999E-03	2.121E-02	0.000E+00	7.031E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
46	7.468E-03	1.981E-02	0.000E+00	6.567E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
47	8.330E-03	2.215E-02	0.000E+00	7.349E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
48	1.108E-02	2.935E-02	0.000E+00	9.740E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
49	8.817E-03	2.343E-02	0.000E+00	7.782E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
50	1.041E-02	2.765E-02	0.000E+00	9.197E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
51	1.041E-02	2.756E-02	0.000E+00	9.171E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
52	8.821E-03	2.336E-02	0.000E+00	7.768E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
53	6.919E-03	1.835E-02	0.000E+00	6.085E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
54	7.279E-03	1.929E-02	0.000E+00	6.404E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
55	8.953E-03	2.369E-02	0.000E+00	7.880E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
56	1.028E-02	2.723E-02	0.000E+00	9.054E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
57	1.141E-02	3.017E-02	0.000E+00	1.002E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
58	1.231E-02	3.254E-02	0.000E+00	1.080E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
59	1.360E-02	3.593E-02	0.000E+00	1.193E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
60	1.593E-02	4.205E-02	0.000E+00	1.397E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
61	2.742E-02	7.280E-02	0.000E+00	2.418E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
62	2.983E-02	7.935E-02	0.000E+00	2.634E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
63	2.047E-02	5.408E-02	0.000E+00	1.796E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
64	1.843E-02	4.870E-02	0.000E+00	1.616E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
65	1.337E-02	3.540E-02	0.000E+00	1.175E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
66	1.574E-02	4.172E-02	0.000E+00	1.385E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
67	1.337E-02	3.532E-02	0.000E+00	1.173E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
68	1.178E-02	3.134E-02	0.000E+00	1.038E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
69	1.781E-02	4.723E-02	0.000E+00	1.566E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
70	2.130E-02	5.643E-02	0.000E+00	1.871E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
71	2.857E-02	7.612E-02	0.000E+00	2.528E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
72	1.654E-02	4.375E-02	0.000E+00	1.451E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
73	1.106E-02	2.932E-02	0.000E+00	9.721E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
74	1.402E-02	3.709E-02	0.000E+00	1.232E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
75	1.105E-02	2.924E-02	0.000E+00	9.703E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
76	1.130E-02	2.992E-02	0.000E+00	9.924E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
77	1.251E-02	3.311E-02	0.000E+00	1.098E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
78	1.243E-02	3.284E-02	0.000E+00	1.090E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
79	1.394E-02	3.684E-02	0.000E+00	1.222E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
80	1.435E-02	3.795E-02	0.000E+00	1.259E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
81	1.319E-02	3.492E-02	0.000E+00	1.158E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
82	1.244E-02	3.297E-02	0.000E+00	1.093E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
83	1.380E-02	3.658E-02	0.000E+00	1.213E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
84	1.431E-02	3.793E-02	0.000E+00	1.257E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
85	1.965E-02	5.206E-02	0.000E+00	1.726E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
86	4.113E-02	1.092E-01	0.000E+00	3.619E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
87	3.761E-02	9.971E-02	0.000E+00	3.306E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
88	3.654E-02	9.677E-02	0.000E+00	3.209E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
89	3.542E-02	9.372E-02	0.000E+00	3.108E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
90	3.129E-02	8.278E-02	0.000E+00	2.746E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
91	1.101E-02	2.913E-02	0.000E+00	9.671E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
92	1.144E-02	3.026E-02	0.000E+00	1.005E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
93	1.094E-02	2.895E-02	0.000E+00	9.616E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
94	1.149E-02	3.035E-02	0.000E+00	1.008E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
95	1.225E-02	3.234E-02	0.000E+00	1.074E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
96	1.229E-02	3.254E-02	0.000E+00	1.079E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
97	1.472E-02	3.895E-02	0.000E+00	1.292E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

98	1.658E-02	4.391E-02	0.000E+00	1.456E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
99	1.440E-02	3.805E-02	0.000E+00	1.263E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
100	1.513E-02	4.009E-02	0.000E+00	1.329E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
101	1.412E-02	3.733E-02	0.000E+00	1.238E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
102	1.596E-02	4.215E-02	0.000E+00	1.400E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
103	1.123E-02	2.972E-02	0.000E+00	9.872E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
104	1.064E-02	2.816E-02	0.000E+00	9.356E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
105	1.142E-02	3.015E-02	0.000E+00	1.001E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
106	1.246E-02	3.288E-02	0.000E+00	1.092E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
107	1.362E-02	3.605E-02	0.000E+00	1.196E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
108	1.533E-02	4.057E-02	0.000E+00	1.346E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
109	1.644E-02	4.346E-02	0.000E+00	1.442E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
110	1.608E-02	4.248E-02	0.000E+00	1.411E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
111	1.355E-02	3.582E-02	0.000E+00	1.190E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
112	1.531E-02	4.045E-02	0.000E+00	1.342E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
113	1.764E-02	4.659E-02	0.000E+00	1.546E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
114	1.845E-02	4.873E-02	0.000E+00	1.618E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
115	1.019E-02	2.699E-02	0.000E+00	8.971E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
116	1.125E-02	2.972E-02	0.000E+00	9.866E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
117	1.257E-02	3.320E-02	0.000E+00	1.102E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
118	1.447E-02	3.830E-02	0.000E+00	1.270E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
119	1.701E-02	4.501E-02	0.000E+00	1.493E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
120	1.804E-02	4.770E-02	0.000E+00	1.583E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
121	1.709E-02	4.517E-02	0.000E+00	1.500E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
122	1.510E-02	3.990E-02	0.000E+00	1.326E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
123	1.635E-02	4.319E-02	0.000E+00	1.433E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
124	1.831E-02	4.838E-02	0.000E+00	1.605E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
125	1.913E-02	5.052E-02	0.000E+00	1.678E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
126	1.993E-02	5.264E-02	0.000E+00	1.748E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
127	1.101E-02	2.908E-02	0.000E+00	9.652E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
128	1.260E-02	3.329E-02	0.000E+00	1.105E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
129	1.487E-02	3.939E-02	0.000E+00	1.306E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
130	1.652E-02	4.375E-02	0.000E+00	1.452E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
131	1.504E-02	3.982E-02	0.000E+00	1.322E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
132	1.871E-02	4.944E-02	0.000E+00	1.642E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
133	1.632E-02	4.314E-02	0.000E+00	1.433E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
134	1.664E-02	4.398E-02	0.000E+00	1.459E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
135	1.818E-02	4.803E-02	0.000E+00	1.594E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
136	2.392E-02	6.386E-02	0.000E+00	2.119E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
137	2.114E-02	5.582E-02	0.000E+00	1.854E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
138	2.062E-02	5.502E-02	0.000E+00	1.826E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
139	1.257E-02	3.320E-02	0.000E+00	1.103E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
140	1.467E-02	3.889E-02	0.000E+00	1.289E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
141	1.683E-02	4.460E-02	0.000E+00	1.480E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
142	1.547E-02	4.215E-02	0.000E+00	1.397E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
143	1.467E-02	3.985E-02	0.000E+00	1.321E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
144	1.666E-02	4.402E-02	0.000E+00	1.463E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
145	1.769E-02	4.675E-02	0.000E+00	1.551E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
146	1.876E-02	4.958E-02	0.000E+00	1.645E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
147	2.161E-02	5.708E-02	0.000E+00	1.896E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
148	2.638E-02	7.025E-02	0.000E+00	2.332E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
149	2.729E-02	7.263E-02	0.000E+00	2.410E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
150	2.649E-02	7.039E-02	0.000E+00	2.336E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
151	1.938E-02	5.121E-02	0.000E+00	1.699E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
152	2.529E-02	6.762E-02	0.000E+00	2.244E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
153	2.894E-02	7.720E-02	0.000E+00	2.561E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
154	1.985E-02	5.242E-02	0.000E+00	1.740E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
155	2.839E-02	7.542E-02	0.000E+00	2.504E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
156	2.674E-02	7.103E-02	0.000E+00	2.359E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
157	1.306E-02	3.454E-02	0.000E+00	1.147E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
158	1.095E-02	2.911E-02	0.000E+00	9.663E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
159	7.056E-03	1.868E-02	0.000E+00	6.196E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
160	8.936E-03	2.375E-02	0.000E+00	7.871E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
161	9.405E-03	2.487E-02	0.000E+00	8.254E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
162	9.476E-03	2.503E-02	0.000E+00	8.314E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
163	1.046E-02	2.761E-02	0.000E+00	9.171E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
164	1.035E-02	2.740E-02	0.000E+00	9.087E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
165	1.605E-02	4.244E-02	0.000E+00	1.408E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
166	1.737E-02	4.592E-02	0.000E+00	1.524E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
167	1.465E-02	3.870E-02	0.000E+00	1.284E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
168	9.208E-03	2.438E-02	0.000E+00	8.086E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
169	7.677E-03	2.033E-02	0.000E+00	6.742E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
170	1.008E-02	2.666E-02	0.000E+00	8.848E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
171	9.908E-03	2.620E-02	0.000E+00	8.698E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
172	1.112E-02	2.937E-02	0.000E+00	9.753E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
173	1.085E-02	2.877E-02	0.000E+00	9.537E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
174	1.584E-02	4.192E-02	0.000E+00	1.390E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
175	1.543E-02	4.082E-02	0.000E+00	1.354E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
176	1.644E-02	4.341E-02	0.000E+00	1.440E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
177	1.760E-02	4.648E-02	0.000E+00	1.543E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
178	1.115E-02	2.948E-02	0.000E+00	9.791E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
179	8.299E-03	2.199E-02	0.000E+00	7.291E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
180	1.148E-02	3.035E-02	0.000E+00	1.008E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
181	1.148E-02	3.032E-02	0.000E+00	1.007E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
182	1.444E-02	3.820E-02	0.000E+00	1.267E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
183	1.522E-02	4.030E-02	0.000E+00	1.336E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
184	1.401E-02	3.703E-02	0.000E+00	1.229E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
185	1.859E-02	4.910E-02	0.000E+00	1.629E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
186	1.821E-02	4.809E-02	0.000E+00	1.596E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
187	1.705E-02	4.503E-02	0.000E+00	1.494E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
188	1.424E-02	3.774E-02	0.000E+00	1.251E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
189	9.166E-03	2.429E-02	0.000E+00	8.068E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
190	1.135E-02	2.997E-02	0.000E+00	9.948E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
191	1.557E-02	4.119E-02	0.000E+00	1.366E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
192	1.657E-02	4.379E-02	0.000E+00	1.454E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
193	1.693E-02	4.473E-02	0.000E+00	1.484E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
194	1.976E-02	5.217E-02	0.000E+00	1.732E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

195	1.808E-02	4.772E-02	0.000E+00	1.585E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
196	1.787E-02	4.717E-02	0.000E+00	1.566E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
197	1.580E-02	4.173E-02	0.000E+00	1.386E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
198	1.705E-02	4.522E-02	0.000E+00	1.499E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
199	1.070E-02	2.827E-02	0.000E+00	9.380E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
200	1.608E-02	4.263E-02	0.000E+00	1.415E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
201	1.782E-02	4.710E-02	0.000E+00	1.563E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
202	2.634E-02	6.998E-02	0.000E+00	2.324E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
203	1.737E-02	4.585E-02	0.000E+00	1.523E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
204	1.414E-02	3.736E-02	0.000E+00	1.241E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
205	1.292E-02	3.413E-02	0.000E+00	1.133E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
206	1.087E-02	2.877E-02	0.000E+00	9.557E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
207	9.938E-03	2.630E-02	0.000E+00	8.750E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
208	5.137E-03	1.358E-02	0.000E+00	4.512E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
209	6.676E-03	1.766E-02	0.000E+00	5.860E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
210	7.388E-03	1.955E-02	0.000E+00	6.484E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
211	6.392E-03	1.688E-02	0.000E+00	5.613E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
212	8.387E-03	2.218E-02	0.000E+00	7.363E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
213	9.685E-03	2.562E-02	0.000E+00	8.499E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
214	7.619E-03	2.016E-02	0.000E+00	6.687E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
215	9.881E-03	2.613E-02	0.000E+00	8.667E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
216	9.439E-03	2.496E-02	0.000E+00	8.279E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
217	9.999E-03	2.644E-02	0.000E+00	8.771E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
218	8.916E-03	2.357E-02	0.000E+00	7.821E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
219	1.141E-02	3.021E-02	0.000E+00	1.002E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
220	6.803E-03	1.802E-02	0.000E+00	5.976E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
221	4.065E-03	1.076E-02	0.000E+00	3.570E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
222	5.595E-03	1.479E-02	0.000E+00	4.912E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
223	6.616E-03	1.748E-02	0.000E+00	5.806E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
224	7.155E-03	1.890E-02	0.000E+00	6.278E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
225	7.224E-03	1.909E-02	0.000E+00	6.339E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
226	8.042E-03	2.127E-02	0.000E+00	7.058E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
227	7.586E-03	2.008E-02	0.000E+00	6.659E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
228	6.480E-03	1.716E-02	0.000E+00	5.691E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
229	6.644E-03	1.758E-02	0.000E+00	5.832E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
230	7.927E-03	2.098E-02	0.000E+00	6.957E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
231	6.979E-03	1.844E-02	0.000E+00	6.130E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
232	9.233E-03	2.442E-02	0.000E+00	8.104E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
233	1.010E-02	2.670E-02	0.000E+00	8.858E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
234	8.871E-03	2.347E-02	0.000E+00	7.783E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
235	9.991E-03	2.641E-02	0.000E+00	8.762E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
236	1.045E-02	2.763E-02	0.000E+00	9.166E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
237	9.274E-03	2.452E-02	0.000E+00	8.135E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
238	1.137E-02	3.015E-02	0.000E+00	9.995E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
239	6.730E-03	1.783E-02	0.000E+00	5.913E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
240	6.085E-03	1.609E-02	0.000E+00	5.341E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
241	6.462E-03	1.707E-02	0.000E+00	5.669E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
242	7.651E-03	2.021E-02	0.000E+00	6.712E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
243	7.426E-03	1.963E-02	0.000E+00	6.517E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
244	9.224E-03	2.440E-02	0.000E+00	8.094E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
245	1.047E-02	2.766E-02	0.000E+00	9.183E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
246	6.442E-03	1.704E-02	0.000E+00	5.655E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
247	7.827E-03	2.071E-02	0.000E+00	6.870E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
248	7.828E-03	2.072E-02	0.000E+00	6.871E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
249	6.485E-03	1.716E-02	0.000E+00	5.692E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
250	8.521E-03	2.254E-02	0.000E+00	7.476E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
251	7.498E-03	1.982E-02	0.000E+00	6.586E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
252	1.037E-02	2.743E-02	0.000E+00	9.100E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
253	9.921E-03	2.624E-02	0.000E+00	8.704E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
254	1.088E-02	2.876E-02	0.000E+00	9.542E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
255	1.071E-02	2.832E-02	0.000E+00	9.397E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
256	9.637E-03	2.548E-02	0.000E+00	8.453E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
257	1.104E-02	2.929E-02	0.000E+00	9.709E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
258	6.822E-03	1.807E-02	0.000E+00	5.992E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
259	6.972E-03	1.844E-02	0.000E+00	6.120E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
260	7.846E-03	2.073E-02	0.000E+00	6.883E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
261	7.614E-03	2.011E-02	0.000E+00	6.681E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
262	1.074E-02	2.841E-02	0.000E+00	9.423E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
263	1.152E-02	3.045E-02	0.000E+00	1.011E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
264	1.354E-02	3.578E-02	0.000E+00	1.188E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
265	8.193E-03	2.168E-02	0.000E+00	7.192E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
266	7.413E-03	1.962E-02	0.000E+00	6.508E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
267	7.355E-03	1.946E-02	0.000E+00	6.455E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
268	8.798E-03	2.328E-02	0.000E+00	7.721E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
269	7.199E-03	1.906E-02	0.000E+00	6.322E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
270	9.158E-03	2.422E-02	0.000E+00	8.034E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
271	8.130E-03	2.151E-02	0.000E+00	7.140E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
272	1.182E-02	3.124E-02	0.000E+00	1.036E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
273	1.173E-02	3.101E-02	0.000E+00	1.029E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
274	1.040E-02	2.748E-02	0.000E+00	9.117E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
275	9.992E-03	2.642E-02	0.000E+00	8.766E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
276	1.035E-02	2.750E-02	0.000E+00	9.114E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
277	7.114E-03	1.882E-02	0.000E+00	6.245E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
278	8.559E-03	2.261E-02	0.000E+00	7.508E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
279	8.923E-03	2.357E-02	0.000E+00	7.828E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
280	1.279E-02	3.383E-02	0.000E+00	1.122E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
281	1.258E-02	3.324E-02	0.000E+00	1.103E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
282	1.517E-02	4.007E-02	0.000E+00	1.330E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
283	1.333E-02	3.521E-02	0.000E+00	1.169E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
284	8.442E-03	2.232E-02	0.000E+00	7.410E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
285	8.983E-03	2.376E-02	0.000E+00	7.885E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
286	9.116E-03	2.412E-02	0.000E+00	8.002E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
287	8.378E-03	2.218E-02	0.000E+00	7.355E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
288	8.888E-03	2.351E-02	0.000E+00	7.799E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
289	9.232E-03	2.443E-02	0.000E+00	8.102E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
290	9.814E-03	2.595E-02	0.000E+00	8.609E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
291	9.414E-03	2.491E-02	0.000E+00	8.263E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

292	1.866E-02	4.954E-02	0.000E+00	1.646E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
293	1.210E-02	3.201E-02	0.000E+00	1.062E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
294	1.577E-02	4.165E-02	0.000E+00	1.383E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
295	1.536E-02	4.057E-02	0.000E+00	1.347E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
296	1.290E-02	3.409E-02	0.000E+00	1.133E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
297	6.806E-03	1.798E-02	0.000E+00	5.975E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
298	7.763E-03	2.052E-02	0.000E+00	6.815E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
299	8.641E-03	2.285E-02	0.000E+00	7.584E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
300	9.580E-03	2.534E-02	0.000E+00	8.407E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
301	1.030E-02	2.724E-02	0.000E+00	9.036E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
302	9.754E-03	2.581E-02	0.000E+00	8.561E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
303	1.071E-02	2.834E-02	0.000E+00	9.400E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
304	1.044E-02	2.761E-02	0.000E+00	9.159E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
305	1.214E-02	3.211E-02	0.000E+00	1.065E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
306	1.461E-02	3.860E-02	0.000E+00	1.282E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
307	1.241E-02	3.278E-02	0.000E+00	1.088E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
308	1.112E-02	2.940E-02	0.000E+00	9.765E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
309	4.723E-03	1.252E-02	0.000E+00	4.150E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
310	5.649E-03	1.491E-02	0.000E+00	4.960E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
311	6.781E-03	1.790E-02	0.000E+00	5.955E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
312	7.586E-03	2.005E-02	0.000E+00	6.660E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
313	8.437E-03	2.231E-02	0.000E+00	7.404E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
314	9.945E-03	2.631E-02	0.000E+00	8.726E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
315	1.176E-02	3.111E-02	0.000E+00	1.032E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
316	1.173E-02	3.103E-02	0.000E+00	1.029E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
317	1.224E-02	3.243E-02	0.000E+00	1.075E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
318	1.105E-02	2.923E-02	0.000E+00	9.709E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
319	9.521E-03	2.519E-02	0.000E+00	8.375E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
320	6.932E-03	1.834E-02	0.000E+00	6.098E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
321	9.391E-03	2.492E-02	0.000E+00	8.261E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
322	9.533E-03	2.530E-02	0.000E+00	8.387E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
323	9.668E-03	2.567E-02	0.000E+00	8.507E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
324	9.783E-03	2.598E-02	0.000E+00	8.609E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
325	9.855E-03	2.617E-02	0.000E+00	8.674E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
326	1.027E-02	2.718E-02	0.000E+00	9.015E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
327	1.218E-02	3.225E-02	0.000E+00	1.069E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
328	1.396E-02	3.694E-02	0.000E+00	1.225E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
329	1.561E-02	4.130E-02	0.000E+00	1.370E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
330	7.786E-03	2.059E-02	0.000E+00	6.831E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
331	7.613E-03	2.014E-02	0.000E+00	6.682E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
332	7.702E-03	2.038E-02	0.000E+00	6.761E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
333	2.573E-02	6.807E-02	0.000E+00	2.258E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
334	2.691E-02	7.118E-02	0.000E+00	2.361E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
335	2.815E-02	7.446E-02	0.000E+00	2.470E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
336	2.943E-02	7.784E-02	0.000E+00	2.582E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
337	3.068E-02	8.113E-02	0.000E+00	2.691E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
338	3.171E-02	8.385E-02	0.000E+00	2.782E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
339	3.218E-02	8.510E-02	0.000E+00	2.823E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
340	3.124E-02	8.262E-02	0.000E+00	2.740E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
341	7.424E-03	1.969E-02	0.000E+00	6.527E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
342	8.581E-03	2.270E-02	0.000E+00	7.534E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
343	8.752E-03	2.315E-02	0.000E+00	7.687E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
344	8.110E-03	2.144E-02	0.000E+00	7.126E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
345	7.079E-03	1.871E-02	0.000E+00	6.221E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
346	3.021E-02	7.992E-02	0.000E+00	2.651E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
347	3.045E-02	8.057E-02	0.000E+00	2.672E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
348	3.064E-02	8.108E-02	0.000E+00	2.689E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
349	3.084E-02	8.161E-02	0.000E+00	2.707E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
350	3.116E-02	8.246E-02	0.000E+00	2.735E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
351	3.176E-02	8.405E-02	0.000E+00	2.787E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
352	3.280E-02	8.682E-02	0.000E+00	2.879E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
353	3.421E-02	9.058E-02	0.000E+00	3.004E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
354	7.542E-03	1.997E-02	0.000E+00	6.633E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
355	6.278E-03	1.660E-02	0.000E+00	5.516E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
356	5.659E-03	1.495E-02	0.000E+00	4.970E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
357	5.224E-03	1.380E-02	0.000E+00	4.588E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
358	4.876E-03	1.288E-02	0.000E+00	4.282E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
359	2.406E-02	6.352E-02	0.000E+00	2.108E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
360	2.405E-02	6.350E-02	0.000E+00	2.107E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
361	2.398E-02	6.328E-02	0.000E+00	2.100E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
362	2.379E-02	6.278E-02	0.000E+00	2.083E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
363	2.346E-02	6.188E-02	0.000E+00	2.054E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
364	2.305E-02	6.076E-02	0.000E+00	2.017E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
365	2.264E-02	5.966E-02	0.000E+00	1.980E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
366	2.214E-02	5.833E-02	0.000E+00	1.937E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
367	2.255E-02	5.938E-02	0.000E+00	1.972E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
368	1.853E-02	4.898E-02	0.000E+00	1.625E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
369	9.733E-03	2.586E-02	0.000E+00	8.569E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
370	5.842E-03	1.544E-02	0.000E+00	5.126E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
371	6.754E-03	1.791E-02	0.000E+00	5.936E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
372	6.234E-03	1.653E-02	0.000E+00	5.480E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
373	5.764E-03	1.525E-02	0.000E+00	5.059E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
374	5.283E-03	1.398E-02	0.000E+00	4.637E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
375	6.847E-03	1.810E-02	0.000E+00	6.010E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
376	7.376E-03	1.950E-02	0.000E+00	6.474E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
377	7.699E-03	2.035E-02	0.000E+00	6.757E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
378	7.714E-03	2.039E-02	0.000E+00	6.773E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
379	7.227E-03	1.909E-02	0.000E+00	6.349E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
380	6.800E-03	1.801E-02	0.000E+00	5.981E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
381	9.589E-03	2.532E-02	0.000E+00	8.403E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
382	1.107E-02	2.923E-02	0.000E+00	9.712E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
383	2.910E-02	7.683E-02	0.000E+00	2.549E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
384	3.494E-02	9.229E-02	0.000E+00	3.062E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
385	3.004E-02	7.941E-02	0.000E+00	2.634E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
386	2.150E-02	5.682E-02	0.000E+00	1.885E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
387	1.331E-02	3.517E-02	0.000E+00	1.167E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
388	1.178E-02	3.120E-02	0.000E+00	1.035E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

389	1.257E-02	3.327E-02	0.000E+00	1.103E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
390	4.195E-03	1.116E-02	0.000E+00	3.696E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
391	4.369E-03	1.154E-02	0.000E+00	3.835E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
392	4.814E-03	1.272E-02	0.000E+00	4.225E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
393	5.018E-03	1.326E-02	0.000E+00	4.404E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
394	6.309E-03	1.667E-02	0.000E+00	5.540E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
395	5.761E-03	1.522E-02	0.000E+00	5.060E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
396	5.185E-03	1.372E-02	0.000E+00	4.555E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
397	5.919E-03	1.566E-02	0.000E+00	5.201E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
398	6.424E-03	1.697E-02	0.000E+00	5.633E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
399	9.487E-03	2.505E-02	0.000E+00	8.318E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
400	8.406E-03	2.220E-02	0.000E+00	7.381E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
401	1.315E-02	3.477E-02	0.000E+00	1.153E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
402	2.841E-02	7.507E-02	0.000E+00	2.490E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
403	3.476E-02	9.181E-02	0.000E+00	3.046E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
404	2.656E-02	7.022E-02	0.000E+00	2.329E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
405	1.854E-02	4.900E-02	0.000E+00	1.625E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
406	1.091E-02	2.886E-02	0.000E+00	9.573E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
407	1.030E-02	2.724E-02	0.000E+00	9.037E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
408	1.036E-02	2.742E-02	0.000E+00	9.095E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
409	1.094E-02	2.896E-02	0.000E+00	9.606E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
410	3.747E-03	9.954E-03	0.000E+00	3.299E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
411	3.808E-03	1.011E-02	0.000E+00	3.352E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
412	3.773E-03	9.984E-03	0.000E+00	3.311E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
413	8.609E-03	2.274E-02	0.000E+00	7.552E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
414	5.620E-03	1.485E-02	0.000E+00	4.937E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
415	5.778E-03	1.540E-02	0.000E+00	5.118E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
416	6.760E-03	1.786E-02	0.000E+00	5.938E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
417	4.374E-03	1.172E-02	0.000E+00	3.896E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
418	7.561E-03	2.000E-02	0.000E+00	6.634E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
419	5.623E-03	1.489E-02	0.000E+00	4.937E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
420	1.363E-02	3.609E-02	0.000E+00	1.197E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
421	2.160E-02	5.709E-02	0.000E+00	1.896E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
422	2.284E-02	6.043E-02	0.000E+00	2.005E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
423	2.169E-02	5.733E-02	0.000E+00	1.905E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
424	2.100E-02	5.551E-02	0.000E+00	1.842E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
425	3.133E-02	8.273E-02	0.000E+00	2.748E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
426	3.009E-02	7.946E-02	0.000E+00	2.644E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
427	2.859E-02	7.552E-02	0.000E+00	2.506E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
428	3.380E-02	8.928E-02	0.000E+00	2.962E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
429	3.224E-02	8.517E-02	0.000E+00	2.826E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
430	3.053E-02	8.068E-02	0.000E+00	2.677E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
431	2.478E-02	6.554E-02	0.000E+00	2.174E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
432	2.349E-02	6.211E-02	0.000E+00	2.060E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
433	2.204E-02	5.829E-02	0.000E+00	1.934E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
434	1.535E-02	4.058E-02	0.000E+00	1.346E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
435	1.271E-02	3.363E-02	0.000E+00	1.115E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
436	1.067E-02	2.825E-02	0.000E+00	9.369E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
437	1.034E-02	2.735E-02	0.000E+00	9.074E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
438	8.793E-03	2.326E-02	0.000E+00	7.716E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
439	7.098E-03	1.878E-02	0.000E+00	6.233E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
440	9.261E-03	2.449E-02	0.000E+00	8.122E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
441	1.065E-02	2.816E-02	0.000E+00	9.340E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
442	1.047E-02	2.769E-02	0.000E+00	9.187E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
443	8.767E-03	2.318E-02	0.000E+00	7.688E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
444	8.510E-03	2.250E-02	0.000E+00	7.463E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
445	7.219E-03	1.910E-02	0.000E+00	6.334E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
446	7.443E-03	1.972E-02	0.000E+00	6.538E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
447	7.777E-03	2.056E-02	0.000E+00	6.822E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
448	7.209E-03	1.906E-02	0.000E+00	6.325E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
449	9.428E-03	2.495E-02	0.000E+00	8.275E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
450	7.952E-03	2.104E-02	0.000E+00	6.979E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
451	6.587E-03	1.742E-02	0.000E+00	5.780E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00

*** PREDICTED PEAK 1-HOUR CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	Zn	NIXPM
1	1.638E-03	2.828E+02
2	1.221E-03	2.112E+02
3	1.245E-03	2.154E+02
4	2.108E-03	3.648E+02
5	2.040E-03	3.531E+02
6	1.989E-03	3.441E+02
7	1.548E-03	2.686E+02
8	1.502E-03	2.597E+02
9	1.570E-03	2.720E+02
10	2.390E-03	4.120E+02
11	1.367E-03	2.363E+02
12	3.178E-03	5.503E+02
13	6.338E-03	1.098E+03
14	6.533E-03	1.132E+03

15	6.608E-03	1.145E+03
16	6.707E-03	1.162E+03
17	2.262E-03	3.909E+02
18	1.773E-03	3.067E+02
19	1.997E-03	3.453E+02
20	2.055E-03	3.553E+02
21	5.019E-03	8.560E+02
22	4.657E-03	7.953E+02
23	5.440E-03	9.340E+02
24	7.079E-03	1.220E+03
25	7.436E-03	1.282E+03
26	6.552E-03	1.134E+03
27	4.933E-03	8.600E+02
28	5.070E-03	8.757E+02
29	7.855E-03	1.354E+03
30	8.966E-03	1.548E+03
31	8.572E-03	1.482E+03
32	7.102E-03	1.229E+03
33	6.701E-03	1.162E+03
34	6.769E-03	1.173E+03
35	4.647E-03	8.025E+02
36	3.825E-03	6.611E+02
37	4.166E-03	7.217E+02
38	2.122E-03	3.667E+02
39	2.289E-03	3.954E+02
40	2.483E-03	4.287E+02
41	3.191E-03	5.509E+02
42	3.311E-03	5.698E+02
43	1.754E-03	3.004E+02
44	1.241E-03	2.167E+02
45	1.570E-03	2.699E+02
46	1.468E-03	2.516E+02
47	1.648E-03	2.812E+02
48	2.170E-03	3.734E+02
49	1.741E-03	2.971E+02
50	2.054E-03	3.513E+02
51	2.038E-03	3.515E+02
52	1.726E-03	2.979E+02
53	1.360E-03	2.335E+02
54	1.428E-03	2.459E+02
55	1.748E-03	3.025E+02
56	2.012E-03	3.477E+02
57	2.225E-03	3.851E+02
58	2.396E-03	4.153E+02
59	2.643E-03	4.589E+02
60	3.094E-03	5.374E+02
61	5.407E-03	9.314E+02
62	5.912E-03	1.015E+03
63	3.982E-03	6.908E+02
64	3.587E-03	6.207E+02
65	2.616E-03	4.517E+02
66	3.088E-03	5.310E+02
67	2.600E-03	4.503E+02
68	2.335E-03	3.966E+02
69	3.498E-03	5.994E+02
70	4.171E-03	7.169E+02
71	5.681E-03	9.636E+02
72	3.229E-03	5.572E+02
73	2.169E-03	3.732E+02
74	2.736E-03	4.732E+02
75	2.158E-03	3.727E+02
76	2.211E-03	3.811E+02
77	2.445E-03	4.218E+02
78	2.420E-03	4.186E+02
79	2.713E-03	4.696E+02
80	2.797E-03	4.836E+02
81	2.577E-03	4.444E+02
82	2.440E-03	4.190E+02
83	2.708E-03	4.647E+02
84	2.808E-03	4.818E+02
85	3.849E-03	6.602E+02
86	8.096E-03	1.384E+03
87	7.381E-03	1.267E+03
88	7.150E-03	1.231E+03
89	6.917E-03	1.193E+03
90	6.107E-03	1.053E+03
91	2.150E-03	3.713E+02
92	2.232E-03	3.859E+02
93	2.136E-03	3.692E+02
94	2.232E-03	3.872E+02
95	2.378E-03	4.128E+02
96	2.404E-03	4.141E+02
97	2.873E-03	4.962E+02
98	3.246E-03	5.582E+02
99	2.803E-03	4.858E+02
100	2.965E-03	5.107E+02
101	2.749E-03	4.753E+02
102	3.103E-03	5.377E+02
103	2.194E-03	3.790E+02
104	2.080E-03	3.591E+02
105	2.218E-03	3.846E+02
106	2.418E-03	4.197E+02
107	2.662E-03	4.586E+02
108	2.994E-03	5.167E+02
109	3.203E-03	5.542E+02
110	3.129E-03	5.423E+02
111	2.638E-03	4.577E+02

112	2.978E-03	5.152E+02
113	3.428E-03	5.940E+02
114	3.585E-03	6.220E+02
115	1.996E-03	3.441E+02
116	2.187E-03	3.790E+02
117	2.442E-03	4.236E+02
118	2.830E-03	4.871E+02
119	3.321E-03	5.731E+02
120	3.515E-03	6.081E+02
121	3.327E-03	5.765E+02
122	2.938E-03	5.099E+02
123	3.180E-03	5.503E+02
124	3.560E-03	6.168E+02
125	3.717E-03	6.450E+02
126	3.872E-03	6.723E+02
127	2.140E-03	3.706E+02
128	2.449E-03	4.245E+02
129	2.913E-03	5.006E+02
130	3.233E-03	5.571E+02
131	2.941E-03	5.076E+02
132	3.642E-03	6.310E+02
133	3.177E-03	5.512E+02
134	3.239E-03	5.604E+02
135	3.536E-03	6.124E+02
136	4.787E-03	8.174E+02
137	4.106E-03	7.130E+02
138	4.122E-03	7.044E+02
139	2.444E-03	4.233E+02
140	2.881E-03	4.934E+02
141	3.301E-03	5.670E+02
142	3.263E-03	5.320E+02
143	3.079E-03	5.058E+02
144	3.244E-03	5.624E+02
145	3.443E-03	5.957E+02
146	3.650E-03	6.322E+02
147	4.199E-03	7.290E+02
148	5.264E-03	8.990E+02
149	5.424E-03	9.292E+02
150	5.248E-03	9.006E+02
151	3.771E-03	6.531E+02
152	5.083E-03	8.658E+02
153	5.779E-03	9.877E+02
154	3.855E-03	6.690E+02
155	5.609E-03	9.648E+02
156	5.281E-03	9.089E+02
157	2.547E-03	4.406E+02
158	2.165E-03	3.695E+02
159	1.380E-03	2.379E+02
160	1.767E-03	3.020E+02
161	1.833E-03	3.171E+02
162	1.843E-03	3.195E+02
163	2.031E-03	3.525E+02
164	2.026E-03	3.479E+02
165	3.129E-03	5.404E+02
166	3.383E-03	5.857E+02
167	2.848E-03	4.933E+02
168	1.802E-03	3.105E+02
169	1.503E-03	2.588E+02
170	1.966E-03	3.399E+02
171	1.932E-03	3.341E+02
172	2.160E-03	3.748E+02
173	2.128E-03	3.649E+02
174	3.094E-03	5.336E+02
175	3.012E-03	5.207E+02
176	3.194E-03	5.536E+02
177	3.419E-03	5.934E+02
178	2.174E-03	3.761E+02
179	1.627E-03	2.797E+02
180	2.238E-03	3.871E+02
181	2.229E-03	3.869E+02
182	2.817E-03	4.867E+02
183	2.980E-03	5.129E+02
184	2.727E-03	4.717E+02
185	3.611E-03	6.264E+02
186	3.536E-03	6.141E+02
187	3.312E-03	5.745E+02
188	2.792E-03	4.800E+02
189	1.798E-03	3.095E+02
190	2.204E-03	3.822E+02
191	3.041E-03	5.243E+02
192	3.226E-03	5.590E+02
193	3.293E-03	5.701E+02
194	3.837E-03	6.662E+02
195	3.509E-03	6.096E+02
196	3.469E-03	6.022E+02
197	3.070E-03	5.330E+02
198	3.351E-03	5.741E+02
199	2.082E-03	3.599E+02
200	3.156E-03	5.418E+02
201	3.469E-03	6.004E+02
202	5.206E-03	8.953E+02
203	3.372E-03	5.859E+02
204	2.750E-03	4.775E+02
205	2.512E-03	4.356E+02
206	2.124E-03	3.673E+02
207	1.942E-03	3.360E+02
208	1.005E-03	1.734E+02

209	1.304E-03	2.251E+02
210	1.443E-03	2.489E+02
211	1.243E-03	2.156E+02
212	1.635E-03	2.828E+02
213	1.890E-03	3.264E+02
214	1.488E-03	2.566E+02
215	1.926E-03	3.331E+02
216	1.840E-03	3.182E+02
217	1.949E-03	3.371E+02
218	1.738E-03	3.006E+02
219	2.235E-03	3.849E+02
220	1.333E-03	2.296E+02
221	7.941E-04	1.369E+02
222	1.091E-03	1.887E+02
223	1.286E-03	2.231E+02
224	1.391E-03	2.412E+02
225	1.406E-03	2.435E+02
226	1.569E-03	2.708E+02
227	1.482E-03	2.556E+02
228	1.268E-03	2.182E+02
229	1.297E-03	2.240E+02
230	1.548E-03	2.671E+02
231	1.358E-03	2.355E+02
232	1.801E-03	3.112E+02
233	1.969E-03	3.402E+02
234	1.731E-03	2.990E+02
235	1.946E-03	3.368E+02
236	2.037E-03	3.523E+02
237	1.808E-03	3.126E+02
238	2.232E-03	3.839E+02
239	1.319E-03	2.272E+02
240	1.186E-03	2.051E+02
241	1.257E-03	2.177E+02
242	1.488E-03	2.579E+02
243	1.447E-03	2.503E+02
244	1.799E-03	3.106E+02
245	2.038E-03	3.531E+02
246	1.257E-03	2.173E+02
247	1.529E-03	2.638E+02
248	1.530E-03	2.637E+02
249	1.266E-03	2.187E+02
250	1.663E-03	2.871E+02
251	1.461E-03	2.529E+02
252	2.023E-03	3.495E+02
253	1.935E-03	3.342E+02
254	2.119E-03	3.668E+02
255	2.088E-03	3.611E+02
256	1.878E-03	3.249E+02
257	2.172E-03	3.728E+02
258	1.337E-03	2.303E+02
259	1.359E-03	2.351E+02
260	1.526E-03	2.643E+02
261	1.480E-03	2.569E+02
262	2.095E-03	3.616E+02
263	2.243E-03	3.886E+02
264	2.633E-03	4.564E+02
265	1.601E-03	2.760E+02
266	1.450E-03	2.495E+02
267	1.436E-03	2.480E+02
268	1.718E-03	2.965E+02
269	1.409E-03	2.423E+02
270	1.786E-03	3.086E+02
271	1.586E-03	2.741E+02
272	2.303E-03	3.981E+02
273	2.287E-03	3.953E+02
274	2.025E-03	3.504E+02
275	1.948E-03	3.368E+02
276	2.046E-03	3.497E+02
277	1.388E-03	2.398E+02
278	1.664E-03	2.885E+02
279	1.734E-03	3.009E+02
280	2.495E-03	4.307E+02
281	2.449E-03	4.244E+02
282	2.948E-03	5.115E+02
283	2.592E-03	4.490E+02
284	1.646E-03	2.846E+02
285	1.753E-03	3.028E+02
286	1.781E-03	3.071E+02
287	1.638E-03	2.821E+02
288	1.735E-03	2.996E+02
289	1.803E-03	3.110E+02
290	1.913E-03	3.308E+02
291	1.837E-03	3.173E+02
292	3.675E-03	6.291E+02
293	2.362E-03	4.078E+02
294	3.064E-03	5.321E+02
295	2.985E-03	5.179E+02
296	2.511E-03	4.356E+02
297	1.322E-03	2.297E+02
298	1.511E-03	2.619E+02
299	1.685E-03	2.914E+02
300	1.870E-03	3.229E+02
301	2.010E-03	3.469E+02
302	1.905E-03	3.284E+02
303	2.091E-03	3.610E+02
304	2.035E-03	3.519E+02
305	2.368E-03	4.090E+02

306	2.841E-03	4.932E+02
307	2.413E-03	4.184E+02
308	2.167E-03	3.754E+02
309	9.258E-04	1.589E+02
310	1.095E-03	1.907E+02
311	1.316E-03	2.290E+02
312	1.476E-03	2.560E+02
313	1.645E-03	2.845E+02
314	1.941E-03	3.353E+02
315	2.295E-03	3.963E+02
316	2.289E-03	3.950E+02
317	2.397E-03	4.124E+02
318	2.156E-03	3.732E+02
319	1.859E-03	3.217E+02
320	1.353E-03	2.341E+02
321	1.848E-03	3.151E+02
322	1.877E-03	3.198E+02
323	1.904E-03	3.242E+02
324	1.927E-03	3.280E+02
325	1.943E-03	3.303E+02
326	2.007E-03	3.459E+02
327	2.381E-03	4.103E+02
328	2.727E-03	4.699E+02
329	3.048E-03	5.246E+02
330	1.519E-03	2.623E+02
331	1.487E-03	2.566E+02
332	1.505E-03	2.597E+02
333	5.023E-03	8.663E+02
334	5.251E-03	9.060E+02
335	5.493E-03	9.480E+02
336	5.741E-03	9.912E+02
337	5.982E-03	1.033E+03
338	6.183E-03	1.068E+03
339	6.274E-03	1.084E+03
340	6.093E-03	1.052E+03
341	1.458E-03	2.504E+02
342	1.675E-03	2.894E+02
343	1.707E-03	2.954E+02
344	1.581E-03	2.739E+02
345	1.378E-03	2.391E+02
346	5.899E-03	1.018E+03
347	5.947E-03	1.027E+03
348	5.986E-03	1.033E+03
349	6.026E-03	1.040E+03
350	6.089E-03	1.051E+03
351	6.205E-03	1.071E+03
352	6.410E-03	1.106E+03
353	6.692E-03	1.154E+03
354	1.476E-03	2.546E+02
355	1.224E-03	2.119E+02
356	1.101E-03	1.910E+02
357	1.016E-03	1.763E+02
358	9.484E-04	1.646E+02
359	4.673E-03	8.104E+02
360	4.669E-03	8.102E+02
361	4.651E-03	8.075E+02
362	4.612E-03	8.012E+02
363	4.543E-03	7.898E+02
364	4.458E-03	7.756E+02
365	4.374E-03	7.616E+02
366	4.274E-03	7.447E+02
367	4.349E-03	7.582E+02
368	3.609E-03	6.250E+02
369	1.922E-03	3.289E+02
370	1.137E-03	1.971E+02
371	1.326E-03	2.280E+02
372	1.224E-03	2.102E+02
373	1.125E-03	1.942E+02
374	1.031E-03	1.780E+02
375	1.334E-03	2.309E+02
376	1.437E-03	2.488E+02
377	1.499E-03	2.597E+02
378	1.501E-03	2.603E+02
379	1.406E-03	2.440E+02
380	1.332E-03	2.300E+02
381	1.863E-03	3.230E+02
382	2.149E-03	3.736E+02
383	5.648E-03	9.798E+02
384	6.790E-03	1.176E+03
385	5.852E-03	1.013E+03
386	4.188E-03	7.254E+02
387	2.591E-03	4.485E+02
388	2.306E-03	3.976E+02
389	2.457E-03	4.238E+02
390	8.308E-04	1.418E+02
391	8.487E-04	1.474E+02
392	9.364E-04	1.624E+02
393	9.769E-04	1.692E+02
394	1.228E-03	2.129E+02
395	1.121E-03	1.945E+02
396	1.012E-03	1.750E+02
397	1.155E-03	1.999E+02
398	1.249E-03	2.165E+02
399	1.843E-03	3.198E+02
400	1.633E-03	2.839E+02
401	2.561E-03	4.424E+02
402	5.527E-03	9.557E+02

403	6.755E-03	1.170E+03
404	5.178E-03	8.954E+02
405	3.610E-03	6.251E+02
406	2.127E-03	3.680E+02
407	2.007E-03	3.474E+02
408	2.025E-03	3.496E+02
409	2.138E-03	3.690E+02
410	7.398E-04	1.267E+02
411	7.511E-04	1.284E+02
412	7.370E-04	1.272E+02
413	1.673E-03	2.903E+02
414	1.094E-03	1.898E+02
415	1.151E-03	1.966E+02
416	1.315E-03	2.283E+02
417	8.846E-04	1.497E+02
418	1.474E-03	2.543E+02
419	1.100E-03	1.889E+02
420	2.667E-03	4.588E+02
421	4.206E-03	7.282E+02
422	4.459E-03	7.702E+02
423	4.223E-03	7.322E+02
424	4.089E-03	7.066E+02
425	6.085E-03	1.056E+03
426	5.844E-03	1.016E+03
427	5.558E-03	9.618E+02
428	6.570E-03	1.138E+03
429	6.270E-03	1.086E+03
430	5.941E-03	1.029E+03
431	4.833E-03	8.357E+02
432	4.580E-03	7.921E+02
433	4.298E-03	7.433E+02
434	2.992E-03	5.173E+02
435	2.483E-03	4.283E+02
436	2.088E-03	3.594E+02
437	2.017E-03	3.487E+02
438	1.716E-03	2.964E+02
439	1.387E-03	2.393E+02
440	1.805E-03	3.121E+02
441	2.075E-03	3.590E+02
442	2.041E-03	3.531E+02
443	1.708E-03	2.955E+02
444	1.658E-03	2.868E+02
445	1.408E-03	2.434E+02
446	1.458E-03	2.512E+02
447	1.516E-03	2.621E+02
448	1.406E-03	2.430E+02
449	1.842E-03	3.178E+02
450	1.553E-03	2.682E+02
451	1.285E-03	2.219E+02

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00 0.000E+00

*** PREDICTED ANNUAL CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	ACETA	ACROL	As	BENZE	Be	Cd	Cr	Cu	HCHO	HCN
1	0.000E+00	0.000E+00	3.310E-05	0.000E+00	1.904E-06	1.212E-06	2.028E-07	2.780E-06	0.000E+00	1.076E-01
2	0.000E+00	0.000E+00	4.961E-05	0.000E+00	2.494E-06	1.792E-06	3.020E-07	4.165E-06	0.000E+00	1.098E-01
3	0.000E+00	0.000E+00	4.927E-05	0.000E+00	2.457E-06	1.780E-06	2.998E-07	4.137E-06	0.000E+00	1.091E-01
4	0.000E+00	0.000E+00	6.400E-05	0.000E+00	3.405E-06	2.327E-06	3.907E-07	5.375E-06	0.000E+00	1.637E-01
5	0.000E+00	0.000E+00	6.458E-05	0.000E+00	3.440E-06	2.347E-06	3.942E-07	5.423E-06	0.000E+00	1.606E-01
6	0.000E+00	0.000E+00	5.864E-05	0.000E+00	3.185E-06	2.132E-06	3.583E-07	4.924E-06	0.000E+00	1.451E-01
7	0.000E+00	0.000E+00	5.180E-05	0.000E+00	2.757E-06	1.879E-06	3.161E-07	4.350E-06	0.000E+00	1.011E-01
8	0.000E+00	0.000E+00	5.209E-05	0.000E+00	3.046E-06	1.896E-06	3.193E-07	4.375E-06	0.000E+00	1.013E-01
9	0.000E+00	0.000E+00	5.411E-05	0.000E+00	3.296E-06	1.972E-06	3.323E-07	4.544E-06	0.000E+00	1.048E-01
10	0.000E+00	0.000E+00	6.869E-05	0.000E+00	3.726E-06	2.525E-06	4.199E-07	5.769E-06	0.000E+00	3.612E-01
11	0.000E+00	0.000E+00	2.801E-05	0.000E+00	1.558E-06	1.017E-06	1.713E-07	2.352E-06	0.000E+00	7.910E-02
12	0.000E+00	0.000E+00	1.215E-04	0.000E+00	7.191E-06	4.408E-06	7.452E-07	1.021E-05	0.000E+00	5.094E-01
13	0.000E+00	0.000E+00	5.263E-05	0.000E+00	4.083E-06	1.962E-06	3.278E-07	4.422E-06	0.000E+00	4.054E-01
14	0.000E+00	0.000E+00	5.307E-05	0.000E+00	4.118E-06	1.977E-06	3.306E-07	4.459E-06	0.000E+00	4.186E-01
15	0.000E+00	0.000E+00	5.169E-05	0.000E+00	4.034E-06	1.930E-06	3.222E-07	4.344E-06	0.000E+00	3.973E-01
16	0.000E+00	0.000E+00	5.874E-05	0.000E+00	4.532E-06	2.190E-06	3.658E-07	4.936E-06	0.000E+00	5.410E-01
17	0.000E+00	0.000E+00	3.100E-05	0.000E+00	1.772E-06	1.125E-06	1.898E-07	2.603E-06	0.000E+00	8.143E-02
18	0.000E+00	0.000E+00	4.675E-05	0.000E+00	2.931E-06	1.707E-06	2.875E-07	3.926E-06	0.000E+00	1.774E-01
19	0.000E+00	0.000E+00	4.637E-05	0.000E+00	3.303E-06	1.723E-06	2.874E-07	3.895E-06	0.000E+00	2.230E-01
20	0.000E+00	0.000E+00	6.509E-05	0.000E+00	4.498E-06	2.391E-06	4.025E-07	5.468E-06	0.000E+00	4.009E-01
21	0.000E+00	0.000E+00	4.745E-05	0.000E+00	3.914E-06	1.829E-06	2.973E-07	3.988E-06	0.000E+00	9.410E-01
22	0.000E+00	0.000E+00	4.419E-05	0.000E+00	3.989E-06	1.723E-06	2.787E-07	3.715E-06	0.000E+00	8.964E-01
23	0.000E+00	0.000E+00	4.404E-05	0.000E+00	4.065E-06	1.722E-06	2.782E-07	3.702E-06	0.000E+00	8.852E-01
24	0.000E+00	0.000E+00	4.376E-05	0.000E+00	3.979E-06	1.696E-06	2.760E-07	3.678E-06	0.000E+00	8.887E-01
25	0.000E+00	0.000E+00	4.410E-05	0.000E+00	3.873E-06	1.695E-06	2.774E-07	3.707E-06	0.000E+00	9.623E-01
26	0.000E+00	0.000E+00	4.678E-05	0.000E+00	3.322E-06	1.752E-06	2.900E-07	3.930E-06	0.000E+00	1.120E+00
27	0.000E+00	0.000E+00	4.793E-05	0.000E+00	3.075E-06	1.770E-06	2.953E-07	4.026E-06	0.000E+00	6.577E-01
28	0.000E+00	0.000E+00	5.121E-05	0.000E+00	3.195E-06	1.889E-06	3.151E-07	4.302E-06	0.000E+00	5.401E-01

29	0.000E+00	0.000E+00	6.495E-05	0.000E+00	4.267E-06	2.389E-06	4.006E-07	5.456E-06	0.000E+00	4.623E-01
30	0.000E+00	0.000E+00	6.879E-05	0.000E+00	4.668E-06	2.327E-06	4.250E-07	5.779E-06	0.000E+00	4.549E-01
31	0.000E+00	0.000E+00	7.196E-05	0.000E+00	5.043E-06	2.638E-06	4.453E-07	6.045E-06	0.000E+00	4.844E-01
32	0.000E+00	0.000E+00	7.216E-05	0.000E+00	5.258E-06	2.651E-06	4.475E-07	6.063E-06	0.000E+00	5.855E-01
33	0.000E+00	0.000E+00	7.988E-05	0.000E+00	6.029E-06	2.960E-06	4.966E-07	6.712E-06	0.000E+00	2.114E+00
34	0.000E+00	0.000E+00	8.819E-05	0.000E+00	6.794E-06	3.282E-06	5.491E-07	7.410E-06	0.000E+00	2.252E+00
35	0.000E+00	0.000E+00	9.398E-05	0.000E+00	7.278E-06	3.496E-06	5.853E-07	7.896E-06	0.000E+00	2.229E+00
36	0.000E+00	0.000E+00	9.813E-05	0.000E+00	7.372E-06	3.626E-06	6.098E-07	8.245E-06	0.000E+00	2.126E+00
37	0.000E+00	0.000E+00	9.851E-05	0.000E+00	7.194E-06	3.593E-06	6.107E-07	8.276E-06	0.000E+00	1.957E+00
38	0.000E+00	0.000E+00	9.568E-05	0.000E+00	6.666E-06	3.470E-06	5.915E-07	8.038E-06	0.000E+00	1.032E+00
39	0.000E+00	0.000E+00	1.167E-04	0.000E+00	8.403E-06	4.250E-06	7.228E-07	9.803E-06	0.000E+00	1.977E+00
40	0.000E+00	0.000E+00	1.478E-04	0.000E+00	1.095E-05	5.398E-06	9.170E-07	1.241E-05	0.000E+00	2.461E+00
41	0.000E+00	0.000E+00	2.012E-04	0.000E+00	1.693E-05	8.374E-06	1.268E-06	1.691E-05	0.000E+00	2.178E+00
42	0.000E+00	0.000E+00	3.067E-04	0.000E+00	2.823E-05	1.182E-05	1.936E-06	2.578E-05	0.000E+00	1.405E+00
43	0.000E+00	0.000E+00	2.608E-04	0.000E+00	2.088E-05	1.002E-05	1.630E-06	2.191E-05	0.000E+00	9.625E-01
44	0.000E+00	0.000E+00	2.402E-04	0.000E+00	1.085E-05	9.005E-06	1.460E-06	2.017E-05	0.000E+00	6.130E-01
45	0.000E+00	0.000E+00	2.331E-04	0.000E+00	7.174E-06	8.431E-06	1.397E-06	1.956E-05	0.000E+00	4.053E-01
46	0.000E+00	0.000E+00	1.470E-04	0.000E+00	5.420E-06	5.343E-06	8.860E-07	1.234E-05	0.000E+00	2.956E-01
47	0.000E+00	0.000E+00	2.158E-04	0.000E+00	1.003E-05	8.121E-06	1.313E-06	1.812E-05	0.000E+00	3.160E-01
48	0.000E+00	0.000E+00	2.830E-04	0.000E+00	7.484E-06	1.032E-05	1.692E-06	2.375E-05	0.000E+00	3.435E-01
49	0.000E+00	0.000E+00	3.349E-04	0.000E+00	8.783E-06	1.226E-05	2.002E-06	2.810E-05	0.000E+00	3.582E-01
50	0.000E+00	0.000E+00	3.589E-04	0.000E+00	1.022E-05	1.327E-05	2.150E-06	3.012E-05	0.000E+00	3.461E-01
51	0.000E+00	0.000E+00	1.883E-04	0.000E+00	8.211E-06	7.296E-06	1.145E-06	1.581E-05	0.000E+00	2.950E-01
52	0.000E+00	0.000E+00	1.250E-04	0.000E+00	5.962E-06	4.702E-06	7.614E-07	1.050E-05	0.000E+00	2.445E-01
53	0.000E+00	0.000E+00	9.077E-05	0.000E+00	4.443E-06	3.355E-06	5.528E-07	7.622E-06	0.000E+00	2.025E-01
54	0.000E+00	0.000E+00	7.295E-05	0.000E+00	5.948E-06	2.954E-06	4.580E-07	6.130E-06	0.000E+00	1.706E-01
55	0.000E+00	0.000E+00	7.876E-05	0.000E+00	5.091E-06	3.177E-06	4.880E-07	6.616E-06	0.000E+00	1.816E-01
56	0.000E+00	0.000E+00	8.555E-05	0.000E+00	5.686E-06	3.482E-06	5.312E-07	7.187E-06	0.000E+00	1.892E-01
57	0.000E+00	0.000E+00	9.047E-05	0.000E+00	4.594E-06	3.318E-06	5.515E-07	7.597E-06	0.000E+00	1.888E-01
58	0.000E+00	0.000E+00	1.133E-04	0.000E+00	6.012E-06	4.196E-06	6.923E-07	9.515E-06	0.000E+00	2.140E-01
59	0.000E+00	0.000E+00	1.403E-04	0.000E+00	1.125E-05	5.580E-06	8.792E-07	1.179E-05	0.000E+00	2.380E-01
60	0.000E+00	0.000E+00	1.680E-04	0.000E+00	1.360E-05	6.525E-06	1.052E-06	1.412E-05	0.000E+00	2.545E-01
61	0.000E+00	0.000E+00	2.032E-04	0.000E+00	1.588E-05	7.773E-06	1.268E-06	1.707E-05	0.000E+00	2.647E-01
62	0.000E+00	0.000E+00	2.398E-04	0.000E+00	1.870E-05	9.119E-06	1.496E-06	2.015E-05	0.000E+00	2.785E-01
63	0.000E+00	0.000E+00	2.756E-04	0.000E+00	2.297E-05	1.056E-05	1.727E-06	2.316E-05	0.000E+00	2.988E-01
64	0.000E+00	0.000E+00	2.535E-04	0.000E+00	2.122E-05	9.962E-06	1.591E-06	2.130E-05	0.000E+00	2.776E-01
65	0.000E+00	0.000E+00	2.992E-04	0.000E+00	2.245E-05	1.128E-05	1.861E-06	2.514E-05	0.000E+00	2.999E-01
66	0.000E+00	0.000E+00	3.725E-04	0.000E+00	2.401E-05	1.392E-05	2.298E-06	3.129E-05	0.000E+00	3.263E-01
67	0.000E+00	0.000E+00	5.089E-04	0.000E+00	2.447E-05	1.887E-05	3.098E-06	4.273E-05	0.000E+00	3.674E-01
68	0.000E+00	0.000E+00	5.447E-04	0.000E+00	2.377E-05	2.046E-05	3.306E-06	4.573E-05	0.000E+00	4.083E-01
69	0.000E+00	0.000E+00	5.448E-04	0.000E+00	2.506E-05	2.022E-05	3.311E-06	4.574E-05	0.000E+00	4.505E-01
70	0.000E+00	0.000E+00	5.318E-04	0.000E+00	2.529E-05	1.982E-05	3.237E-06	4.466E-05	0.000E+00	4.778E-01
71	0.000E+00	0.000E+00	3.443E-04	0.000E+00	1.964E-05	1.288E-05	2.112E-06	2.892E-05	0.000E+00	3.984E-01
72	0.000E+00	0.000E+00	2.507E-04	0.000E+00	1.680E-05	9.499E-06	1.550E-06	2.106E-05	0.000E+00	3.294E-01
73	0.000E+00	0.000E+00	1.905E-04	0.000E+00	1.072E-05	7.250E-06	1.169E-06	1.600E-05	0.000E+00	2.760E-01
74	0.000E+00	0.000E+00	1.578E-04	0.000E+00	1.269E-05	6.054E-06	9.868E-07	1.326E-05	0.000E+00	2.394E-01
75	0.000E+00	0.000E+00	1.458E-04	0.000E+00	9.166E-06	5.894E-06	9.024E-07	1.225E-05	0.000E+00	2.440E-01
76	0.000E+00	0.000E+00	1.315E-04	0.000E+00	6.684E-06	4.899E-06	8.021E-07	1.104E-05	0.000E+00	2.555E-01
77	0.000E+00	0.000E+00	1.135E-04	0.000E+00	5.730E-06	4.262E-06	6.929E-07	9.534E-06	0.000E+00	2.577E-01
78	0.000E+00	0.000E+00	9.699E-05	0.000E+00	6.891E-06	4.009E-06	6.049E-07	8.148E-06	0.000E+00	2.520E-01
79	0.000E+00	0.000E+00	1.114E-04	0.000E+00	9.381E-06	4.574E-06	7.012E-07	9.359E-06	0.000E+00	2.866E-01
80	0.000E+00	0.000E+00	1.242E-04	0.000E+00	6.032E-06	4.689E-06	7.568E-07	1.042E-05	0.000E+00	3.304E-01
81	0.000E+00	0.000E+00	1.454E-04	0.000E+00	6.301E-06	5.437E-06	8.823E-07	1.221E-05	0.000E+00	3.905E-01
82	0.000E+00	0.000E+00	1.709E-04	0.000E+00	6.420E-06	6.264E-06	1.031E-06	1.435E-05	0.000E+00	4.736E-01
83	0.000E+00	0.000E+00	1.882E-04	0.000E+00	6.819E-06	6.871E-06	1.134E-06	1.580E-05	0.000E+00	5.906E-01
84	0.000E+00	0.000E+00	2.042E-04	0.000E+00	7.231E-06	7.439E-06	1.229E-06	1.714E-05	0.000E+00	7.943E-01
85	0.000E+00	0.000E+00	2.173E-04	0.000E+00	7.557E-06	7.924E-06	1.308E-06	1.824E-05	0.000E+00	1.268E+00
86	0.000E+00	0.000E+00	2.107E-04	0.000E+00	7.785E-06	7.714E-06	1.271E-06	1.769E-05	0.000E+00	2.898E+00
87	0.000E+00	0.000E+00	1.109E-04	0.000E+00	5.866E-06	4.094E-06	6.773E-07	9.311E-06	0.000E+00	3.314E+00
88	0.000E+00	0.000E+00	7.375E-05	0.000E+00	4.677E-06	2.753E-06	4.544E-07	6.195E-06	0.000E+00	2.082E+00
89	0.000E+00	0.000E+00	5.363E-05	0.000E+00	3.813E-06	2.025E-06	3.327E-07	4.506E-06	0.000E+00	7.771E-01
90	0.000E+00	0.000E+00	5.029E-05	0.000E+00	3.845E-06	1.917E-06	3.134E-07	4.226E-06	0.000E+00	8.986E-01
91	0.000E+00	0.000E+00	2.422E-04	0.000E+00	1.055E-05	8.769E-06	1.467E-06	2.034E-05	0.000E+00	3.187E-01
92	0.000E+00	0.000E+00	2.345E-04	0.000E+00	1.042E-05	8.492E-06	1.422E-06	1.969E-05	0.000E+00	3.061E-01
93	0.000E+00	0.000E+00	2.256E-04	0.000E+00	1.039E-05	8.180E-06	1.369E-06	1.894E-05	0.000E+00	2.908E-01
94	0.000E+00	0.000E+00	2.162E-04	0.000E+00	1.064E-05	7.900E-06	1.316E-06	1.815E-05	0.000E+00	2.753E-01
95	0.000E+00	0.000E+00	2.071E-04	0.000E+00	1.064E-05	7.571E-06	1.263E-06	1.739E-05	0.000E+00	2.619E-01
96	0.000E+00	0.000E+00	1.988E-04	0.000E+00	1.043E-05	7.249E-06	1.213E-06	1.669E-05	0.000E+00	2.499E-01
97	0.000E+00	0.000E+00	1.909E-04	0.000E+00	1.082E-05	7.030E-06	1.169E-06	1.603E-05	0.000E+00	2.385E-01
98	0.000E+00	0.000E+00	1.797E-04	0.000E+00	9.956E-06	6.528E-06	1.099E-06	1.509E-05	0.000E+00	2.277E-01
99	0.000E+00	0.000E+00	1.700E-04	0.000E+00	1.079E-05	6.325E-06	1.048E-06	1.428E-05	0.000E+00	2.188E-01
100	0.000E+00	0.000E+00	1.592E-04	0.000E+00	1.040E-05	5.920E-06	9.824E-07	1.338E-05	0.000E+00	2.110E-01
101	0.000E+00	0.000E+00	1.501E-04	0.000E+00	1.136E-05	5.769E-06	9.355E-07	1.261E-05	0.000E+00	2.051E-01
102	0.000E+00	0.000E+00	1.424E-04	0.000E+00	1.328E-05	5.536E-06	8.996E-07	1.197E-05	0.000E+00	2.007E-01
103	0.000E+00	0.000E+00	2.767E-04	0.000E+00	1.189E-05	1.003E-05	1.675E-06	2.323E-05	0.000E+00	3.327E-01
104	0.000E+00	0.000E+00	2.656E-04	0.000E+00	1.186E-05	9.660E-06	1.611E-06	2.230E-05	0.000E+00	3.173E-01
105	0.000E+00	0.000E+00	2.526E-04	0.000E+00	1.183E-05	9.202E-06	1.534E-06	2.121E-05	0.000E+00	3.003E-01
106	0.000E+00	0.000E+00	2.396E-04	0.000E+00	1.223E-05	8.804E-06	1.461E-06	2.012E-05	0.000E+00	2.839E-01
107	0.000E+00	0.000E+00	2.280E-04	0.000E+00	1.211E-05	8.376E-06	1.392E-06	1.914E-05	0.000E+00	2.703E-01
108	0.000E+00	0.000E+00	2.167E-04	0.000E+00	1.205E-05	7.976E-06	1.326E-06	1.820E-05	0.000E+00	2.583E-01
109	0.000E+00	0.000E+00	2.049E-04	0.000E+00	1.228E-05	7.600E-06	1.259E-06	1.721E-05	0.000E+00	2.465E-01
110	0.000E+00	0.000E+00	1.917E-04	0.000E+00	1.252E-05	7.206E-06	1.184E-06	1.610E-05	0.000E+00	2.356E-01
111	0.000E+00	0.000E+00	1.787E-04	0.000E+00	1.214E-05	6.737E-06	1.106E-06	1.501E-05	0.000E+00	2.260E-01
112	0.000E+00	0.000E+00	1.669E-04	0.000E+00	1.220E-05	6.373E-06	1.038E-06	1.403E-05	0.000E+00	2.183E-01
113	0.000E+00	0.000E+00	1.560E-04	0.000E+00	1.220E-05	6.031E-06	9.742E-07	1.311E-05	0.000E+00	2.124E-01
114	0.000E+00	0.000E+00	1.474E-04	0.000E+00	1.361E-05	5.728E-06	9.306E-07	1.239E-05	0.000E+00	2.080E-01
115	0.000E+00	0.000E+00	3.229E-04	0.000E+00	1.370E-05	1.176E-05	1.955E-06	2.711E-05	0.000E+00	3.458E-01
116	0.000E+00	0.000E+00	3.061E-04	0.000E+00	1.374E-05	1.121E-05	1.857E-06	2.570E-05	0.000E+00	3.285E-01
117	0.000E+00	0.000E+00	2.859E-04	0.000E+00	1.375E-05	1.049E-05	1.739E-06	2.401E-05	0.000E+00	3.103E-01
118	0.000E+00	0.000E+00	2.678E-04	0.000E+00	1.427E-05	9.903E-06	1.636E-06	2.249E-05	0.000E+00	2.936E-01
119	0.000E+00	0.000E+00	2.525E-04	0.000E+00	1.543E-05	9.762E-06	1.556E-06	2.121E-05	0.000E+00	2.808E-01
120	0.000E+00	0.000E+00	2.349E-04	0.000E+00	1.441E-05	8.796E-06	1.445E-06	1.973E-05	0.000E+00	2.673E-01
121	0.000E+00	0.000E+00	2.182E-04	0.000E+00	1.391E-05	8.163E-06	1.345E-06	1.832E-05	0.000E+00	2.545E-01
122	0.000E+00	0.000E+00	2.026E-04	0.000E+00	1.451E-05	7.754E-06	1.258E-06	1.702E-05	0.000E+00	2.433E-01
123	0.000E+00	0.000E+00	1.880E-04	0.000E+00	1.411E-05	7.232E-06	1.171E-06	1.580E-05	0.000E+00	2.336E-01
124	0.000E+00	0.000E+00	1.770E-04	0.000E+00	1.611E-05	7.042E-06	1.118E-06	1.488E-05	0.000E+00	2.269E-01
125	0.000E+00	0.000E+00	1.648E-04	0.000E+00	1.467E-05	6.386E-06	1.038E-06	1.385E-05	0.000E+00	2.211E-01

126	0.000E+00	0.000E+00	1.531E-04	0.000E+00	1.376E-05	5.938E-06	9.649E-07	1.287E-05	0.000E+00	2.166E-01
127	0.000E+00	0.000E+00	3.882E-04	0.000E+00	1.612E-05	1.425E-05	2.349E-06	3.259E-05	0.000E+00	3.590E-01
128	0.000E+00	0.000E+00	3.620E-04	0.000E+00	1.615E-05	1.333E-05	2.197E-06	3.040E-05	0.000E+00	3.402E-01
129	0.000E+00	0.000E+00	3.288E-04	0.000E+00	1.665E-05	1.218E-05	2.005E-06	2.761E-05	0.000E+00	3.212E-01
130	0.000E+00	0.000E+00	3.040E-04	0.000E+00	2.045E-05	1.142E-05	1.880E-06	2.554E-05	0.000E+00	3.046E-01
131	0.000E+00	0.000E+00	2.781E-04	0.000E+00	2.019E-05	1.048E-05	1.727E-06	2.337E-05	0.000E+00	2.899E-01
132	0.000E+00	0.000E+00	2.541E-04	0.000E+00	1.958E-05	9.898E-06	1.586E-06	2.135E-05	0.000E+00	2.769E-01
133	0.000E+00	0.000E+00	2.311E-04	0.000E+00	1.621E-05	8.805E-06	1.433E-06	1.941E-05	0.000E+00	2.628E-01
134	0.000E+00	0.000E+00	2.151E-04	0.000E+00	1.791E-05	8.262E-06	1.348E-06	1.808E-05	0.000E+00	2.520E-01
135	0.000E+00	0.000E+00	1.999E-04	0.000E+00	1.723E-05	7.701E-06	1.256E-06	1.680E-05	0.000E+00	2.427E-01
136	0.000E+00	0.000E+00	1.865E-04	0.000E+00	1.584E-05	7.174E-06	1.171E-06	1.568E-05	0.000E+00	2.358E-01
137	0.000E+00	0.000E+00	1.728E-04	0.000E+00	1.495E-05	6.665E-06	1.086E-06	1.452E-05	0.000E+00	2.307E-01
138	0.000E+00	0.000E+00	1.603E-04	0.000E+00	1.412E-05	6.199E-06	1.009E-06	1.347E-05	0.000E+00	2.262E-01
139	0.000E+00	0.000E+00	4.941E-04	0.000E+00	2.260E-05	1.865E-05	3.005E-06	4.149E-05	0.000E+00	3.738E-01
140	0.000E+00	0.000E+00	4.542E-04	0.000E+00	2.315E-05	1.689E-05	2.771E-06	3.814E-05	0.000E+00	3.531E-01
141	0.000E+00	0.000E+00	3.894E-04	0.000E+00	2.320E-05	1.454E-05	2.392E-06	3.270E-05	0.000E+00	3.326E-01
142	0.000E+00	0.000E+00	3.359E-04	0.000E+00	2.287E-05	1.257E-05	2.078E-06	2.822E-05	0.000E+00	3.138E-01
143	0.000E+00	0.000E+00	2.987E-04	0.000E+00	2.205E-05	1.125E-05	1.857E-06	2.510E-05	0.000E+00	2.992E-01
144	0.000E+00	0.000E+00	2.692E-04	0.000E+00	2.135E-05	1.025E-05	1.681E-06	2.262E-05	0.000E+00	2.859E-01
145	0.000E+00	0.000E+00	2.456E-04	0.000E+00	2.003E-05	9.404E-06	1.537E-06	2.064E-05	0.000E+00	2.728E-01
146	0.000E+00	0.000E+00	2.271E-04	0.000E+00	1.900E-05	8.708E-06	1.423E-06	1.908E-05	0.000E+00	2.615E-01
147	0.000E+00	0.000E+00	2.107E-04	0.000E+00	1.760E-05	8.091E-06	1.321E-06	1.770E-05	0.000E+00	2.531E-01
148	0.000E+00	0.000E+00	1.955E-04	0.000E+00	1.634E-05	7.505E-06	1.225E-06	1.643E-05	0.000E+00	2.468E-01
149	0.000E+00	0.000E+00	1.818E-04	0.000E+00	1.527E-05	6.979E-06	1.140E-06	1.528E-05	0.000E+00	2.414E-01
150	0.000E+00	0.000E+00	1.684E-04	0.000E+00	1.419E-05	6.479E-06	1.056E-06	1.415E-05	0.000E+00	2.368E-01
151	0.000E+00	0.000E+00	2.593E-04	0.000E+00	2.167E-05	9.920E-06	1.625E-06	2.179E-05	0.000E+00	2.838E-01
152	0.000E+00	0.000E+00	2.408E-04	0.000E+00	1.960E-05	9.212E-06	1.507E-06	2.024E-05	0.000E+00	2.734E-01
153	0.000E+00	0.000E+00	2.243E-04	0.000E+00	1.798E-05	8.557E-06	1.402E-06	1.885E-05	0.000E+00	2.654E-01
154	0.000E+00	0.000E+00	2.052E-04	0.000E+00	1.732E-05	7.935E-06	1.288E-06	1.725E-05	0.000E+00	2.594E-01
155	0.000E+00	0.000E+00	1.945E-04	0.000E+00	1.560E-05	7.426E-06	1.216E-06	1.634E-05	0.000E+00	2.533E-01
156	0.000E+00	0.000E+00	1.781E-04	0.000E+00	1.458E-05	6.845E-06	1.115E-06	1.496E-05	0.000E+00	2.487E-01
157	0.000E+00	0.000E+00	1.348E-04	0.000E+00	1.161E-05	5.202E-06	8.471E-07	1.133E-05	0.000E+00	2.167E-01
158	0.000E+00	0.000E+00	1.383E-04	0.000E+00	1.111E-05	5.319E-06	8.651E-07	1.163E-05	0.000E+00	2.146E-01
159	0.000E+00	0.000E+00	1.354E-04	0.000E+00	6.814E-06	4.980E-06	8.251E-07	1.137E-05	0.000E+00	2.232E-01
160	0.000E+00	0.000E+00	1.318E-04	0.000E+00	6.103E-06	4.758E-06	7.998E-07	1.107E-05	0.000E+00	2.253E-01
161	0.000E+00	0.000E+00	1.252E-04	0.000E+00	5.791E-06	4.521E-06	7.599E-07	1.051E-05	0.000E+00	2.142E-01
162	0.000E+00	0.000E+00	1.192E-04	0.000E+00	5.678E-06	4.304E-06	7.239E-07	1.000E-05	0.000E+00	1.976E-01
163	0.000E+00	0.000E+00	1.145E-04	0.000E+00	5.702E-06	4.141E-06	6.967E-07	9.612E-06	0.000E+00	1.784E-01
164	0.000E+00	0.000E+00	1.066E-04	0.000E+00	5.717E-06	3.863E-06	6.507E-07	8.951E-06	0.000E+00	1.634E-01
165	0.000E+00	0.000E+00	9.593E-05	0.000E+00	5.707E-06	3.495E-06	5.885E-07	8.057E-06	0.000E+00	1.536E-01
166	0.000E+00	0.000E+00	8.463E-05	0.000E+00	5.410E-06	3.097E-06	5.211E-07	7.109E-06	0.000E+00	1.484E-01
167	0.000E+00	0.000E+00	7.567E-05	0.000E+00	4.856E-06	2.769E-06	4.660E-07	6.356E-06	0.000E+00	1.475E-01
168	0.000E+00	0.000E+00	1.695E-04	0.000E+00	8.359E-06	6.232E-06	1.032E-06	1.423E-05	0.000E+00	2.548E-01
169	0.000E+00	0.000E+00	1.697E-04	0.000E+00	7.852E-06	6.137E-06	1.030E-06	1.425E-05	0.000E+00	2.632E-01
170	0.000E+00	0.000E+00	1.624E-04	0.000E+00	7.314E-06	5.863E-06	9.844E-07	1.363E-05	0.000E+00	2.574E-01
171	0.000E+00	0.000E+00	1.524E-04	0.000E+00	7.140E-06	5.507E-06	9.252E-07	1.279E-05	0.000E+00	2.354E-01
172	0.000E+00	0.000E+00	1.432E-04	0.000E+00	7.104E-06	5.183E-06	8.715E-07	1.203E-05	0.000E+00	2.115E-01
173	0.000E+00	0.000E+00	1.336E-04	0.000E+00	7.181E-06	4.853E-06	8.160E-07	1.122E-05	0.000E+00	1.891E-01
174	0.000E+00	0.000E+00	1.190E-04	0.000E+00	7.375E-06	4.370E-06	7.318E-07	9.995E-06	0.000E+00	1.753E-01
175	0.000E+00	0.000E+00	1.035E-04	0.000E+00	7.383E-06	3.872E-06	6.416E-07	8.693E-06	0.000E+00	1.670E-01
176	0.000E+00	0.000E+00	8.960E-05	0.000E+00	6.079E-06	3.310E-06	5.537E-07	7.527E-06	0.000E+00	1.640E-01
177	0.000E+00	0.000E+00	7.946E-05	0.000E+00	5.284E-06	2.934E-06	4.905E-07	6.675E-06	0.000E+00	1.602E-01
178	0.000E+00	0.000E+00	2.272E-04	0.000E+00	1.422E-05	8.955E-06	1.404E-06	1.908E-05	0.000E+00	3.129E-01
179	0.000E+00	0.000E+00	2.204E-04	0.000E+00	9.831E-06	8.039E-06	1.337E-06	1.851E-05	0.000E+00	3.087E-01
180	0.000E+00	0.000E+00	2.065E-04	0.000E+00	9.273E-06	7.467E-06	1.252E-06	1.734E-05	0.000E+00	2.880E-01
181	0.000E+00	0.000E+00	1.887E-04	0.000E+00	9.324E-06	6.859E-06	1.149E-06	1.585E-05	0.000E+00	2.543E-01
182	0.000E+00	0.000E+00	1.740E-04	0.000E+00	1.035E-05	6.499E-06	1.069E-06	1.461E-05	0.000E+00	2.260E-01
183	0.000E+00	0.000E+00	1.523E-04	0.000E+00	9.369E-06	5.608E-06	9.363E-07	1.279E-05	0.000E+00	2.042E-01
184	0.000E+00	0.000E+00	1.330E-04	0.000E+00	1.224E-05	5.185E-06	8.400E-07	1.118E-05	0.000E+00	1.918E-01
185	0.000E+00	0.000E+00	1.116E-04	0.000E+00	9.729E-06	4.418E-06	7.030E-07	9.383E-06	0.000E+00	1.841E-01
186	0.000E+00	0.000E+00	9.556E-05	0.000E+00	7.149E-06	3.629E-06	5.946E-07	8.029E-06	0.000E+00	1.801E-01
187	0.000E+00	0.000E+00	8.426E-05	0.000E+00	5.486E-06	3.130E-06	5.197E-07	7.078E-06	0.000E+00	1.711E-01
188	0.000E+00	0.000E+00	3.194E-04	0.000E+00	1.896E-05	1.202E-05	1.963E-06	2.682E-05	0.000E+00	3.803E-01
189	0.000E+00	0.000E+00	3.070E-04	0.000E+00	1.296E-05	1.122E-05	1.858E-06	2.577E-05	0.000E+00	3.526E-01
190	0.000E+00	0.000E+00	2.766E-04	0.000E+00	1.276E-05	1.012E-05	1.680E-06	2.323E-05	0.000E+00	3.140E-01
191	0.000E+00	0.000E+00	2.399E-04	0.000E+00	1.352E-05	8.920E-06	1.470E-06	2.015E-05	0.000E+00	2.751E-01
192	0.000E+00	0.000E+00	2.042E-04	0.000E+00	1.318E-05	7.657E-06	1.259E-06	1.715E-05	0.000E+00	2.448E-01
193	0.000E+00	0.000E+00	1.713E-04	0.000E+00	1.346E-05	6.631E-06	1.070E-06	1.439E-05	0.000E+00	2.223E-01
194	0.000E+00	0.000E+00	1.451E-04	0.000E+00	1.318E-05	5.631E-06	9.152E-07	1.220E-05	0.000E+00	2.102E-01
195	0.000E+00	0.000E+00	1.204E-04	0.000E+00	1.010E-05	4.741E-06	7.561E-07	1.012E-05	0.000E+00	2.042E-01
196	0.000E+00	0.000E+00	1.045E-04	0.000E+00	8.521E-06	4.259E-06	6.562E-07	8.779E-06	0.000E+00	1.960E-01
197	0.000E+00	0.000E+00	8.872E-05	0.000E+00	5.551E-06	3.328E-06	5.465E-07	7.452E-06	0.000E+00	1.793E-01
198	0.000E+00	0.000E+00	5.195E-04	0.000E+00	2.456E-05	1.931E-05	3.161E-06	4.362E-05	0.000E+00	4.455E-01
199	0.000E+00	0.000E+00	5.093E-04	0.000E+00	2.020E-05	1.922E-05	3.082E-06	4.275E-05	0.000E+00	3.932E-01
200	0.000E+00	0.000E+00	4.215E-04	0.000E+00	2.295E-05	1.571E-05	2.579E-06	3.540E-05	0.000E+00	3.427E-01
201	0.000E+00	0.000E+00	2.363E-04	0.000E+00	1.992E-05	9.044E-06	1.482E-06	1.986E-05	0.000E+00	2.666E-01
202	0.000E+00	0.000E+00	1.623E-04	0.000E+00	1.374E-05	6.251E-06	1.018E-06	1.364E-05	0.000E+00	2.350E-01
203	0.000E+00	0.000E+00	1.336E-04	0.000E+00	1.182E-05	5.218E-06	8.415E-07	1.123E-05	0.000E+00	2.262E-01
204	0.000E+00	0.000E+00	1.097E-04	0.000E+00	6.713E-06	4.134E-06	6.754E-07	9.217E-06	0.000E+00	2.070E-01
205	0.000E+00	0.000E+00	8.935E-05	0.000E+00	5.002E-06	3.318E-06	5.473E-07	7.504E-06	0.000E+00	1.831E-01
206	0.000E+00	0.000E+00	8.626E-05	0.000E+00	4.582E-06	3.200E-06	5.271E-07	7.243E-06	0.000E+00	1.852E-01
207	0.000E+00	0.000E+00	8.062E-05	0.000E+00	6.566E-06	3.142E-06	5.050E-07	6.775E-06	0.000E+00	1.822E-01
208	0.000E+00	0.000E+00	8.076E-06	0.000E+00	6.650E-07	3.145E-07	5.062E-08	6.787E-07	0.000E+00	2.610E-02
209	0.000E+00	0.000E+00	9.281E-06	0.000E+00	7.255E-07	3.556E-07	5.793E-08	7.798E-07	0.000E+00	2.782E-02
210	0.000E+00	0.000E+00	1.092E-05	0.000E+00	8.293E-07	4.151E-07	6.802E-08	9.176E-07	0.000E+00	3.472E-02
211	0.000E+00	0.000E+00	1.290E-05	0.000E+00	9.328E-07	4.886E-07	8.013E-08	1.084E-06	0.000E+00	4.190E-02
212	0.000E+00	0.000E+00	1.552E-05	0.000E+00	1.054E-06	5.815E-07	9.598E-08	1.304E-06	0.000E+00	5.246E-02
213	0.000E+00	0.000E+00	1.942E-05	0.000E+00	1.256E-06	7.222E-07	1.198E-07	1.632E-06	0.000E+00	6.743E-02
214	0.000E+00	0.000E+00	2.482E-05	0.000E+00	1.497E-06	9.148E-07	1.525E-07	2.085E-06	0.000E+00	8.204E-02
215	0.000E+00	0.000E+00	3.202E-05	0.000E+00	1.830E-06	1.170E-06	1.961E-07	2.689E-06	0.000E+00	9.015E-02
216	0.000E+00	0.000E+00	3.818E-05	0.000E+00	2.178E-06	1.392E-06	2.338E-07	3.207E-06	0.000E+00	1.030E-01
217	0.000E+00	0.000E+00	4.407E-05	0.000E+00	2.390E-06	1.601E-06	2.692E-07	3.701E-06	0.000E+00	1.041E-01
218	0.000E+00	0.000E+00	4.721E-05	0.000E+00	2.498E-06	1.712E-06	2.881E-07	3.965E-06	0.000E+00	1.065E-01
219	0.000E+00	0.000E+00	4.875E-05	0.000E+00	2.572E-06	1.763E-06	2.974E-07	4.094E-06	0.000E+00	1.029E-01
220	0.000E+00	0.000E+00	4.568E-05	0.000E+00	2.500E-06	1.652E-06	2.791E-07	3.836E-06	0.000E+00	9.431E-02
221	0.000E+00	0.000E+00	4.199E-05	0.000E+00	2.246E-06	1.517E-06	2.563E-07	3.526E-06	0.000E+00	9.157E-02
222	0.000E+00	0.000E+00	3.899E-05	0.000E+00	1.925E-06	1.410E-06	2.372E-07	3.274E-06	0.000E+00	8.812E-02

223	0.000E+00	0.000E+00	3.876E-05	0.000E+00	1.939E-06	1.403E-06	2.360E-07	3.255E-06	0.000E+00	8.205E-02
224	0.000E+00	0.000E+00	3.861E-05	0.000E+00	2.119E-06	1.403E-06	2.360E-07	3.243E-06	0.000E+00	8.017E-02
225	0.000E+00	0.000E+00	3.765E-05	0.000E+00	2.332E-06	1.376E-06	2.315E-07	3.163E-06	0.000E+00	8.064E-02
226	0.000E+00	0.000E+00	3.563E-05	0.000E+00	2.310E-06	1.309E-06	2.196E-07	2.993E-06	0.000E+00	7.827E-02
227	0.000E+00	0.000E+00	7.907E-06	0.000E+00	7.162E-07	3.072E-07	4.987E-08	6.647E-07	0.000E+00	2.615E-02
228	0.000E+00	0.000E+00	9.364E-06	0.000E+00	7.883E-07	3.668E-07	5.879E-08	7.869E-07	0.000E+00	3.064E-02
229	0.000E+00	0.000E+00	1.105E-05	0.000E+00	8.707E-07	4.250E-07	6.904E-08	9.288E-07	0.000E+00	3.386E-02
230	0.000E+00	0.000E+00	1.324E-05	0.000E+00	9.912E-07	5.029E-07	8.240E-08	1.113E-06	0.000E+00	4.394E-02
231	0.000E+00	0.000E+00	1.607E-05	0.000E+00	1.129E-06	6.068E-07	9.960E-08	1.350E-06	0.000E+00	5.325E-02
232	0.000E+00	0.000E+00	2.006E-05	0.000E+00	1.304E-06	7.477E-07	1.237E-07	1.685E-06	0.000E+00	7.161E-02
233	0.000E+00	0.000E+00	2.620E-05	0.000E+00	1.594E-06	9.666E-07	1.610E-07	2.201E-06	0.000E+00	8.948E-02
234	0.000E+00	0.000E+00	3.478E-05	0.000E+00	1.989E-06	1.274E-06	2.131E-07	2.921E-06	0.000E+00	1.052E-01
235	0.000E+00	0.000E+00	4.387E-05	0.000E+00	2.452E-06	1.599E-06	2.684E-07	3.684E-06	0.000E+00	1.204E-01
236	0.000E+00	0.000E+00	5.233E-05	0.000E+00	2.823E-06	1.900E-06	3.196E-07	4.395E-06	0.000E+00	1.230E-01
237	0.000E+00	0.000E+00	5.745E-05	0.000E+00	2.998E-06	2.082E-06	3.504E-07	4.825E-06	0.000E+00	1.231E-01
238	0.000E+00	0.000E+00	5.846E-05	0.000E+00	3.073E-06	2.114E-06	3.566E-07	4.909E-06	0.000E+00	1.186E-01
239	0.000E+00	0.000E+00	5.427E-05	0.000E+00	2.938E-06	1.961E-06	3.314E-07	4.557E-06	0.000E+00	1.084E-01
240	0.000E+00	0.000E+00	5.001E-05	0.000E+00	2.539E-06	1.807E-06	3.046E-07	4.199E-06	0.000E+00	1.103E-01
241	0.000E+00	0.000E+00	4.818E-05	0.000E+00	2.326E-06	1.742E-06	2.929E-07	4.045E-06	0.000E+00	1.009E-01
242	0.000E+00	0.000E+00	4.785E-05	0.000E+00	2.487E-06	1.735E-06	2.918E-07	4.018E-06	0.000E+00	9.553E-02
243	0.000E+00	0.000E+00	4.580E-05	0.000E+00	2.723E-06	1.669E-06	2.810E-07	3.847E-06	0.000E+00	9.242E-02
244	0.000E+00	0.000E+00	4.264E-05	0.000E+00	2.765E-06	1.564E-06	2.628E-07	3.582E-06	0.000E+00	9.037E-02
245	0.000E+00	0.000E+00	3.809E-05	0.000E+00	2.480E-06	1.401E-06	2.348E-07	3.200E-06	0.000E+00	8.523E-02
246	0.000E+00	0.000E+00	7.290E-06	0.000E+00	6.679E-07	2.871E-07	4.605E-08	6.128E-07	0.000E+00	2.450E-02
247	0.000E+00	0.000E+00	8.968E-06	0.000E+00	8.314E-07	3.498E-07	5.666E-08	7.538E-07	0.000E+00	3.079E-02
248	0.000E+00	0.000E+00	1.094E-05	0.000E+00	9.308E-07	4.297E-07	6.877E-08	9.198E-07	0.000E+00	3.683E-02
249	0.000E+00	0.000E+00	1.342E-05	0.000E+00	1.039E-06	5.143E-07	8.371E-08	1.128E-06	0.000E+00	4.313E-02
250	0.000E+00	0.000E+00	1.657E-05	0.000E+00	1.216E-06	6.299E-07	1.030E-07	1.392E-06	0.000E+00	5.625E-02
251	0.000E+00	0.000E+00	2.093E-05	0.000E+00	1.410E-06	7.840E-07	1.294E-07	1.758E-06	0.000E+00	7.369E-02
252	0.000E+00	0.000E+00	2.752E-05	0.000E+00	1.691E-06	1.019E-06	1.693E-07	2.312E-06	0.000E+00	1.001E-01
253	0.000E+00	0.000E+00	3.805E-05	0.000E+00	2.164E-06	1.395E-06	2.330E-07	3.195E-06	0.000E+00	1.242E-01
254	0.000E+00	0.000E+00	5.094E-05	0.000E+00	2.770E-06	1.857E-06	3.113E-07	4.278E-06	0.000E+00	1.430E-01
255	0.000E+00	0.000E+00	6.367E-05	0.000E+00	3.384E-06	2.309E-06	3.886E-07	5.347E-06	0.000E+00	1.489E-01
256	0.000E+00	0.000E+00	7.187E-05	0.000E+00	3.699E-06	2.602E-06	4.380E-07	6.035E-06	0.000E+00	1.449E-01
257	0.000E+00	0.000E+00	7.197E-05	0.000E+00	3.770E-06	2.601E-06	4.389E-07	6.043E-06	0.000E+00	1.367E-01
258	0.000E+00	0.000E+00	6.752E-05	0.000E+00	3.531E-06	2.439E-06	4.117E-07	5.670E-06	0.000E+00	1.339E-01
259	0.000E+00	0.000E+00	6.308E-05	0.000E+00	3.040E-06	2.279E-06	3.834E-07	5.297E-06	0.000E+00	1.311E-01
260	0.000E+00	0.000E+00	6.180E-05	0.000E+00	3.018E-06	2.235E-06	3.758E-07	5.189E-06	0.000E+00	1.178E-01
261	0.000E+00	0.000E+00	5.802E-05	0.000E+00	3.244E-06	2.107E-06	3.549E-07	4.872E-06	0.000E+00	1.096E-01
262	0.000E+00	0.000E+00	5.245E-05	0.000E+00	3.364E-06	1.919E-06	3.230E-07	4.405E-06	0.000E+00	1.053E-01
263	0.000E+00	0.000E+00	4.646E-05	0.000E+00	3.008E-06	1.707E-06	2.863E-07	3.903E-06	0.000E+00	1.002E-01
264	0.000E+00	0.000E+00	3.930E-05	0.000E+00	2.466E-06	1.444E-06	2.419E-07	3.301E-06	0.000E+00	9.167E-02
265	0.000E+00	0.000E+00	7.312E-06	0.000E+00	7.163E-07	2.959E-07	4.648E-08	6.148E-07	0.000E+00	2.656E-02
266	0.000E+00	0.000E+00	8.517E-06	0.000E+00	7.814E-07	3.392E-07	5.384E-08	7.159E-07	0.000E+00	2.991E-02
267	0.000E+00	0.000E+00	1.044E-05	0.000E+00	9.559E-07	4.075E-07	6.589E-08	8.773E-07	0.000E+00	3.741E-02
268	0.000E+00	0.000E+00	1.304E-05	0.000E+00	1.112E-06	5.133E-07	8.198E-08	1.096E-06	0.000E+00	4.573E-02
269	0.000E+00	0.000E+00	1.672E-05	0.000E+00	1.281E-06	6.396E-07	1.042E-07	1.405E-06	0.000E+00	5.784E-02
270	0.000E+00	0.000E+00	2.162E-05	0.000E+00	1.497E-06	8.170E-07	1.339E-07	1.816E-06	0.000E+00	7.618E-02
271	0.000E+00	0.000E+00	2.918E-05	0.000E+00	1.842E-06	1.086E-06	1.798E-07	2.451E-06	0.000E+00	1.112E-01
272	0.000E+00	0.000E+00	4.133E-05	0.000E+00	2.339E-06	1.520E-06	2.531E-07	3.471E-06	0.000E+00	1.475E-01
273	0.000E+00	0.000E+00	6.029E-05	0.000E+00	3.226E-06	2.211E-06	3.683E-07	5.063E-06	0.000E+00	1.730E-01
274	0.000E+00	0.000E+00	8.098E-05	0.000E+00	5.265E-06	3.098E-06	5.003E-07	6.802E-06	0.000E+00	1.854E-01
275	0.000E+00	0.000E+00	9.395E-05	0.000E+00	5.045E-06	3.486E-06	5.744E-07	7.890E-06	0.000E+00	1.748E-01
276	0.000E+00	0.000E+00	9.369E-05	0.000E+00	4.818E-06	3.385E-06	5.709E-07	7.867E-06	0.000E+00	1.664E-01
277	0.000E+00	0.000E+00	8.871E-05	0.000E+00	4.305E-06	3.202E-06	5.393E-07	7.449E-06	0.000E+00	1.702E-01
278	0.000E+00	0.000E+00	8.350E-05	0.000E+00	3.957E-06	3.016E-06	5.072E-07	7.011E-06	0.000E+00	1.546E-01
279	0.000E+00	0.000E+00	7.859E-05	0.000E+00	4.102E-06	2.847E-06	4.793E-07	6.600E-06	0.000E+00	1.359E-01
280	0.000E+00	0.000E+00	6.803E-05	0.000E+00	4.209E-06	2.481E-06	4.182E-07	5.714E-06	0.000E+00	1.240E-01
281	0.000E+00	0.000E+00	5.802E-05	0.000E+00	3.733E-06	2.127E-06	3.574E-07	4.873E-06	0.000E+00	1.202E-01
282	0.000E+00	0.000E+00	4.835E-05	0.000E+00	2.987E-06	1.774E-06	2.973E-07	4.061E-06	0.000E+00	1.107E-01
283	0.000E+00	0.000E+00	3.858E-05	0.000E+00	2.329E-06	1.415E-06	2.369E-07	3.240E-06	0.000E+00	9.651E-02
284	0.000E+00	0.000E+00	7.467E-06	0.000E+00	7.409E-07	2.964E-07	4.746E-08	6.278E-07	0.000E+00	2.349E-02
285	0.000E+00	0.000E+00	8.705E-06	0.000E+00	8.691E-07	3.510E-07	5.540E-08	7.319E-07	0.000E+00	3.090E-02
286	0.000E+00	0.000E+00	1.035E-05	0.000E+00	9.432E-07	4.147E-07	6.544E-08	8.703E-07	0.000E+00	3.724E-02
287	0.000E+00	0.000E+00	1.284E-05	0.000E+00	1.106E-06	4.995E-07	8.070E-08	1.079E-06	0.000E+00	4.743E-02
288	0.000E+00	0.000E+00	1.630E-05	0.000E+00	1.331E-06	6.383E-07	1.021E-07	1.369E-06	0.000E+00	5.970E-02
289	0.000E+00	0.000E+00	2.174E-05	0.000E+00	1.604E-06	8.260E-07	1.352E-07	1.827E-06	0.000E+00	8.209E-02
290	0.000E+00	0.000E+00	3.031E-05	0.000E+00	1.988E-06	1.136E-06	1.871E-07	2.546E-06	0.000E+00	1.187E-01
291	0.000E+00	0.000E+00	4.532E-05	0.000E+00	2.556E-06	1.665E-06	2.775E-07	3.806E-06	0.000E+00	1.794E-01
292	0.000E+00	0.000E+00	7.714E-05	0.000E+00	7.047E-06	2.999E-06	4.868E-07	6.484E-06	0.000E+00	2.159E-01
293	0.000E+00	0.000E+00	1.068E-04	0.000E+00	5.283E-06	3.908E-06	6.505E-07	8.970E-06	0.000E+00	2.364E-01
294	0.000E+00	0.000E+00	6.160E-05	0.000E+00	3.745E-06	2.254E-06	3.784E-07	5.174E-06	0.000E+00	1.358E-01
295	0.000E+00	0.000E+00	4.746E-05	0.000E+00	2.788E-06	1.736E-06	2.911E-07	3.986E-06	0.000E+00	1.154E-01
296	0.000E+00	0.000E+00	3.548E-05	0.000E+00	2.086E-06	1.297E-06	2.176E-07	2.980E-06	0.000E+00	9.029E-02
297	0.000E+00	0.000E+00	6.757E-06	0.000E+00	7.019E-07	2.685E-07	4.310E-08	5.682E-07	0.000E+00	2.096E-02
298	0.000E+00	0.000E+00	8.177E-06	0.000E+00	8.551E-07	3.246E-07	5.218E-08	6.876E-07	0.000E+00	2.620E-02
299	0.000E+00	0.000E+00	9.976E-06	0.000E+00	1.050E-06	4.008E-07	6.374E-08	8.388E-07	0.000E+00	3.583E-02
300	0.000E+00	0.000E+00	1.220E-05	0.000E+00	1.159E-06	4.882E-07	7.735E-08	1.026E-06	0.000E+00	4.698E-02
301	0.000E+00	0.000E+00	1.578E-05	0.000E+00	1.336E-06	6.122E-07	9.904E-08	1.326E-06	0.000E+00	6.375E-02
302	0.000E+00	0.000E+00	2.150E-05	0.000E+00	1.622E-06	8.275E-07	1.339E-07	1.806E-06	0.000E+00	8.530E-02
303	0.000E+00	0.000E+00	3.108E-05	0.000E+00	2.082E-06	1.165E-06	1.921E-07	2.611E-06	0.000E+00	1.295E-01
304	0.000E+00	0.000E+00	4.887E-05	0.000E+00	2.841E-06	1.803E-06	2.997E-07	4.105E-06	0.000E+00	2.189E-01
305	0.000E+00	0.000E+00	8.892E-05	0.000E+00	4.540E-06	3.334E-06	5.428E-07	7.467E-06	0.000E+00	2.860E-01
306	0.000E+00	0.000E+00	6.200E-05	0.000E+00	3.404E-06	2.262E-06	3.790E-07	5.207E-06	0.000E+00	1.416E-01
307	0.000E+00	0.000E+00	4.431E-05	0.000E+00	2.435E-06	1.616E-06	2.709E-07	3.721E-06	0.000E+00	1.075E-01
308	0.000E+00	0.000E+00	3.282E-05	0.000E+00	1.794E-06	1.195E-06	2.006E-07	2.756E-06	0.000E+00	8.307E-02
309	0.000E+00	0.000E+00	5.505E-06	0.000E+00	6.975E-07	2.348E-07	3.586E-08	4.631E-07	0.000E+00	2.298E-02
310	0.000E+00	0.000E+00	6.850E-06	0.000E+00	7.785E-07	2.813E-07	4.409E-08	5.761E-07	0.000E+00	2.628E-02
311	0.000E+00	0.000E+00	8.664E-06	0.000E+00	9.197E-07	3.486E-07	5.540E-08	7.285E-07	0.000E+00	3.233E-02
312	0.000E+00	0.000E+00	1.110E-05	0.000E+00	1.115E-06	4.395E-07	7.059E-08	9.330E-07	0.000E+00	4.381E-02
313	0.000E+00	0.000E+00	1.438E-05	0.000E+00	1.361E-06	5.583E-07	9.108E-08	1.209E-06	0.000E+00	6.128E-02
314	0.000E+00	0.000E+00	1.988E-05	0.000E+00	1.671E-06	7.675E-07	1.247E-07	1.671E-06	0.000E+00	9.220E-02
315	0.000E+00	0.000E+00	2.937E-05	0.000E+00	2.187E-06	1.114E-06	1.827E-07	2.468E-06	0.000E+00	1.426E-01
316	0.000E+00	0.000E+00	4.885E-05	0.000E+00	3.043E-06	1.811E-06	3.007E-07	4.103E-06	0.000E+00	2.752E-01
317	0.000E+00	0.000E+00	1.061E-04	0.000E+00	4.945E-06	3.888E-06	6.447E-07	8.909E-06	0.000E+00	4.466E-01
318	0.000E+00	0.000E+00	5.672E-05	0.000E+00	3.053E-06	2.078E-06	3.466E-07	4.763E-06	0.000E+00	1.356E-01
319	0.000E+00	0.000E+00	3.871E-05	0.000E+00	2.137E-06	1.413E-06	2.367E-07	3.251E-06	0.000E+00	1.031E-01

320	0.000E+00	0.000E+00	2.893E-05	0.000E+00	1.608E-06	1.052E-06	1.769E-07	2.430E-06	0.000E+00	8.254E-02
321	0.000E+00	0.000E+00	4.737E-06	0.000E+00	6.588E-07	2.037E-07	3.116E-08	3.987E-07	0.000E+00	2.218E-02
322	0.000E+00	0.000E+00	5.681E-06	0.000E+00	8.224E-07	2.517E-07	3.759E-08	4.782E-07	0.000E+00	2.735E-02
323	0.000E+00	0.000E+00	6.851E-06	0.000E+00	8.857E-07	2.983E-07	4.478E-08	5.764E-07	0.000E+00	3.250E-02
324	0.000E+00	0.000E+00	8.690E-06	0.000E+00	9.715E-07	3.588E-07	5.588E-08	7.308E-07	0.000E+00	3.948E-02
325	0.000E+00	0.000E+00	1.178E-05	0.000E+00	1.193E-06	4.699E-07	7.502E-08	9.906E-07	0.000E+00	5.477E-02
326	0.000E+00	0.000E+00	1.663E-05	0.000E+00	1.602E-06	6.529E-07	1.054E-07	1.398E-06	0.000E+00	8.874E-02
327	0.000E+00	0.000E+00	2.493E-05	0.000E+00	2.075E-06	9.544E-07	1.562E-07	2.095E-06	0.000E+00	1.550E-01
328	0.000E+00	0.000E+00	4.325E-05	0.000E+00	3.141E-06	1.634E-06	2.686E-07	3.634E-06	0.000E+00	3.502E-01
329	0.000E+00	0.000E+00	1.065E-04	0.000E+00	5.442E-06	3.916E-06	6.496E-07	8.944E-06	0.000E+00	1.024E+00
330	0.000E+00	0.000E+00	4.868E-05	0.000E+00	2.529E-06	1.766E-06	2.968E-07	4.087E-06	0.000E+00	1.270E-01
331	0.000E+00	0.000E+00	3.543E-05	0.000E+00	1.926E-06	1.284E-06	2.164E-07	2.975E-06	0.000E+00	9.301E-02
332	0.000E+00	0.000E+00	2.800E-05	0.000E+00	1.561E-06	1.014E-06	1.712E-07	2.351E-06	0.000E+00	6.892E-02
333	0.000E+00	0.000E+00	4.409E-06	0.000E+00	4.488E-07	1.921E-07	2.824E-08	3.707E-07	0.000E+00	1.470E-02
334	0.000E+00	0.000E+00	5.108E-06	0.000E+00	5.262E-07	2.035E-07	3.256E-08	4.295E-07	0.000E+00	1.973E-02
335	0.000E+00	0.000E+00	6.065E-06	0.000E+00	6.478E-07	2.448E-07	3.880E-08	5.100E-07	0.000E+00	2.751E-02
336	0.000E+00	0.000E+00	7.458E-06	0.000E+00	8.318E-07	3.049E-07	4.792E-08	6.272E-07	0.000E+00	3.814E-02
337	0.000E+00	0.000E+00	9.539E-06	0.000E+00	1.123E-06	3.993E-07	6.166E-08	8.023E-07	0.000E+00	5.241E-02
338	0.000E+00	0.000E+00	1.278E-05	0.000E+00	1.420E-06	5.256E-07	8.210E-08	1.074E-06	0.000E+00	7.478E-02
339	0.000E+00	0.000E+00	1.972E-05	0.000E+00	1.977E-06	7.823E-07	1.254E-07	1.658E-06	0.000E+00	1.309E-01
340	0.000E+00	0.000E+00	3.537E-05	0.000E+00	3.011E-06	1.367E-06	2.221E-07	2.973E-06	0.000E+00	3.583E-01
341	0.000E+00	0.000E+00	1.319E-04	0.000E+00	5.964E-06	4.930E-06	8.013E-07	1.107E-05	0.000E+00	2.552E-01
342	0.000E+00	0.000E+00	6.413E-05	0.000E+00	3.276E-06	2.328E-06	3.907E-07	5.385E-06	0.000E+00	1.558E-01
343	0.000E+00	0.000E+00	4.327E-05	0.000E+00	2.337E-06	1.566E-06	2.642E-07	3.634E-06	0.000E+00	1.045E-01
344	0.000E+00	0.000E+00	3.230E-05	0.000E+00	1.793E-06	1.169E-06	1.975E-07	2.713E-06	0.000E+00	7.842E-02
345	0.000E+00	0.000E+00	2.515E-05	0.000E+00	1.423E-06	9.111E-07	1.539E-07	2.112E-06	0.000E+00	6.510E-02
346	0.000E+00	0.000E+00	3.976E-06	0.000E+00	5.904E-07	1.740E-07	2.636E-08	3.347E-07	0.000E+00	1.281E-02
347	0.000E+00	0.000E+00	4.474E-06	0.000E+00	5.518E-07	2.003E-07	2.917E-08	3.764E-07	0.000E+00	1.499E-02
348	0.000E+00	0.000E+00	5.242E-06	0.000E+00	5.826E-07	2.181E-07	3.371E-08	4.409E-07	0.000E+00	1.813E-02
349	0.000E+00	0.000E+00	6.326E-06	0.000E+00	6.296E-07	2.574E-07	4.028E-08	5.319E-07	0.000E+00	2.341E-02
350	0.000E+00	0.000E+00	7.971E-06	0.000E+00	7.359E-07	3.182E-07	5.041E-08	6.700E-07	0.000E+00	3.398E-02
351	0.000E+00	0.000E+00	1.063E-05	0.000E+00	9.489E-07	4.175E-07	6.704E-08	8.938E-07	0.000E+00	5.623E-02
352	0.000E+00	0.000E+00	1.581E-05	0.000E+00	1.427E-06	6.144E-07	9.966E-08	1.328E-06	0.000E+00	9.998E-02
353	0.000E+00	0.000E+00	2.639E-05	0.000E+00	2.532E-06	1.029E-06	1.671E-07	2.219E-06	0.000E+00	2.396E-01
354	0.000E+00	0.000E+00	9.191E-05	0.000E+00	3.896E-06	3.328E-06	5.562E-07	7.716E-06	0.000E+00	2.033E-01
355	0.000E+00	0.000E+00	5.123E-05	0.000E+00	2.563E-06	1.854E-06	3.118E-07	4.301E-06	0.000E+00	1.366E-01
356	0.000E+00	0.000E+00	3.515E-05	0.000E+00	1.893E-06	1.272E-06	2.146E-07	2.952E-06	0.000E+00	1.057E-01
357	0.000E+00	0.000E+00	2.666E-05	0.000E+00	1.484E-06	9.651E-07	1.630E-07	2.239E-06	0.000E+00	8.453E-02
358	0.000E+00	0.000E+00	2.158E-05	0.000E+00	1.209E-06	7.814E-07	1.320E-07	1.812E-06	0.000E+00	6.830E-02
359	0.000E+00	0.000E+00	3.509E-06	0.000E+00	5.246E-07	1.466E-07	2.321E-08	2.954E-07	0.000E+00	1.316E-02
360	0.000E+00	0.000E+00	4.072E-06	0.000E+00	5.867E-07	1.810E-07	2.694E-08	3.428E-07	0.000E+00	1.556E-02
361	0.000E+00	0.000E+00	4.665E-06	0.000E+00	5.061E-07	1.958E-07	2.996E-08	3.923E-07	0.000E+00	1.917E-02
362	0.000E+00	0.000E+00	5.642E-06	0.000E+00	5.399E-07	2.326E-07	3.585E-08	4.743E-07	0.000E+00	2.432E-02
363	0.000E+00	0.000E+00	7.042E-06	0.000E+00	6.108E-07	2.844E-07	4.438E-08	5.918E-07	0.000E+00	3.224E-02
364	0.000E+00	0.000E+00	9.159E-06	0.000E+00	7.121E-07	3.582E-07	5.722E-08	7.696E-07	0.000E+00	4.477E-02
365	0.000E+00	0.000E+00	1.238E-05	0.000E+00	9.271E-07	4.711E-07	7.704E-08	1.040E-06	0.000E+00	6.848E-02
366	0.000E+00	0.000E+00	1.945E-05	0.000E+00	1.402E-06	7.278E-07	1.207E-07	1.634E-06	0.000E+00	1.434E-01
367	0.000E+00	0.000E+00	4.354E-05	0.000E+00	2.912E-06	1.615E-06	2.689E-07	3.658E-06	0.000E+00	5.764E-01
368	0.000E+00	0.000E+00	1.480E-04	0.000E+00	1.024E-05	5.436E-06	9.152E-07	1.243E-05	0.000E+00	1.089E+00
369	0.000E+00	0.000E+00	1.152E-04	0.000E+00	5.419E-06	4.171E-06	6.994E-07	9.669E-06	0.000E+00	3.203E-01
370	0.000E+00	0.000E+00	6.755E-05	0.000E+00	3.201E-06	2.443E-06	4.103E-07	5.671E-06	0.000E+00	1.818E-01
371	0.000E+00	0.000E+00	4.281E-05	0.000E+00	2.146E-06	1.549E-06	2.606E-07	3.595E-06	0.000E+00	1.207E-01
372	0.000E+00	0.000E+00	3.000E-05	0.000E+00	1.586E-06	1.086E-06	1.830E-07	2.519E-06	0.000E+00	8.815E-02
373	0.000E+00	0.000E+00	2.266E-05	0.000E+00	1.238E-06	8.208E-07	1.384E-07	1.903E-06	0.000E+00	6.925E-02
374	0.000E+00	0.000E+00	1.830E-05	0.000E+00	1.028E-06	6.631E-07	1.120E-07	1.537E-06	0.000E+00	5.717E-02
375	0.000E+00	0.000E+00	3.370E-06	0.000E+00	4.720E-07	1.378E-07	2.211E-08	2.836E-07	0.000E+00	1.093E-02
376	0.000E+00	0.000E+00	3.920E-06	0.000E+00	5.360E-07	1.610E-07	2.566E-08	3.298E-07	0.000E+00	1.306E-02
377	0.000E+00	0.000E+00	4.626E-06	0.000E+00	5.924E-07	2.036E-07	3.023E-08	3.892E-07	0.000E+00	1.628E-02
378	0.000E+00	0.000E+00	5.406E-06	0.000E+00	4.745E-07	2.194E-07	3.411E-08	4.544E-07	0.000E+00	2.097E-02
379	0.000E+00	0.000E+00	6.800E-06	0.000E+00	5.468E-07	2.656E-07	4.257E-08	5.714E-07	0.000E+00	2.656E-02
380	0.000E+00	0.000E+00	8.670E-06	0.000E+00	7.013E-07	3.306E-07	5.422E-08	7.286E-07	0.000E+00	3.412E-02
381	0.000E+00	0.000E+00	1.163E-05	0.000E+00	9.318E-07	4.480E-07	7.274E-08	9.775E-07	0.000E+00	5.026E-02
382	0.000E+00	0.000E+00	1.685E-05	0.000E+00	1.211E-06	6.351E-07	1.046E-07	1.415E-06	0.000E+00	1.038E-01
383	0.000E+00	0.000E+00	3.283E-05	0.000E+00	2.169E-06	1.215E-06	2.026E-07	2.758E-06	0.000E+00	2.467E-01
384	0.000E+00	0.000E+00	6.580E-05	0.000E+00	4.981E-06	2.430E-06	4.091E-07	5.529E-06	0.000E+00	6.396E-01
385	0.000E+00	0.000E+00	8.306E-05	0.000E+00	6.485E-06	3.075E-06	5.174E-07	6.979E-06	0.000E+00	1.316E+00
386	0.000E+00	0.000E+00	9.162E-05	0.000E+00	6.766E-06	3.364E-06	5.686E-07	7.697E-06	0.000E+00	1.359E+00
387	0.000E+00	0.000E+00	8.690E-05	0.000E+00	5.666E-06	3.147E-06	5.353E-07	7.300E-06	0.000E+00	5.410E-01
388	0.000E+00	0.000E+00	7.217E-05	0.000E+00	4.049E-06	2.613E-06	4.414E-07	6.061E-06	0.000E+00	2.168E-01
389	0.000E+00	0.000E+00	5.336E-05	0.000E+00	2.830E-06	1.931E-06	3.256E-07	4.481E-06	0.000E+00	1.307E-01
390	0.000E+00	0.000E+00	3.776E-05	0.000E+00	2.006E-06	1.367E-06	2.304E-07	3.171E-06	0.000E+00	9.252E-02
391	0.000E+00	0.000E+00	2.801E-05	0.000E+00	1.480E-06	1.014E-06	1.709E-07	2.352E-06	0.000E+00	6.989E-02
392	0.000E+00	0.000E+00	2.141E-05	0.000E+00	1.149E-06	7.755E-07	1.307E-07	1.798E-06	0.000E+00	5.664E-02
393	0.000E+00	0.000E+00	1.724E-05	0.000E+00	9.574E-07	6.249E-07	1.054E-07	1.448E-06	0.000E+00	4.785E-02
394	0.000E+00	0.000E+00	3.384E-06	0.000E+00	4.291E-07	1.380E-07	2.199E-08	2.847E-07	0.000E+00	1.136E-02
395	0.000E+00	0.000E+00	4.077E-06	0.000E+00	4.958E-07	1.646E-07	2.637E-08	3.430E-07	0.000E+00	1.319E-02
396	0.000E+00	0.000E+00	4.939E-06	0.000E+00	6.314E-07	2.064E-07	3.216E-08	4.156E-07	0.000E+00	1.481E-02
397	0.000E+00	0.000E+00	5.724E-06	0.000E+00	6.176E-07	2.371E-07	3.671E-08	4.813E-07	0.000E+00	1.729E-02
398	0.000E+00	0.000E+00	6.558E-06	0.000E+00	6.372E-07	2.681E-07	4.169E-08	5.513E-07	0.000E+00	2.133E-02
399	0.000E+00	0.000E+00	7.749E-06	0.000E+00	6.841E-07	3.088E-07	4.886E-08	6.513E-07	0.000E+00	2.938E-02
400	0.000E+00	0.000E+00	9.938E-06	0.000E+00	7.495E-07	3.863E-07	6.196E-08	8.351E-07	0.000E+00	5.171E-02
401	0.000E+00	0.000E+00	1.479E-05	0.000E+00	9.975E-07	5.555E-07	9.147E-08	1.243E-06	0.000E+00	8.871E-02
402	0.000E+00	0.000E+00	2.638E-05	0.000E+00	1.793E-06	9.825E-07	1.631E-07	2.216E-06	0.000E+00	1.559E-01
403	0.000E+00	0.000E+00	4.277E-05	0.000E+00	3.228E-06	1.593E-06	2.660E-07	3.594E-06	0.000E+00	2.727E-01
404	0.000E+00	0.000E+00	5.567E-05	0.000E+00	4.218E-06	2.067E-06	3.462E-07	4.677E-06	0.000E+00	4.267E-01
405	0.000E+00	0.000E+00	6.176E-05	0.000E+00	4.789E-06	2.292E-06	3.846E-07	5.189E-06	0.000E+00	4.589E-01
406	0.000E+00	0.000E+00	6.017E-05	0.000E+00	3.988E-06	2.202E-06	3.712E-07	5.055E-06	0.000E+00	3.247E-01
407	0.000E+00	0.000E+00	5.242E-05	0.000E+00	3.183E-06	1.906E-06	3.219E-07	4.403E-06	0.000E+00	1.890E-01
408	0.000E+00	0.000E+00	4.207E-05	0.000E+00	2.353E-06	1.525E-06	2.573E-07	3.533E-06	0.000E+00	1.185E-01
409	0.000E+00	0.000E+00	3.289E-05	0.000E+00	1.857E-06	1.192E-06	2.012E-07	2.762E-06	0.000E+00	8.180E-02
410	0.000E+00	0.000E+00	2.610E-05	0.000E+00	1.467E-06	9.481E-07	1.597E-07	2.192E-06	0.000E+00	6.429E-02
411	0.000E+00	0.000E+00	2.090E-05	0.000E+00	1.144E-06	7.578E-07	1.277E-07	1.755E-06	0.000E+00	5.346E-02
412	0.000E+00	0.000E+00	1.666E-05	0.000E+00	9.193E-07	6.040E-07	1.018E-07	1.399E-06	0.000E+00	4.446E-02
413	0.000E+00	0.000E+00	5.705E-06	0.000E+00	6.085E-07	2.423E-07	3.661E-08	4.798E-07	0.000E+00	2.175E-02
414	0.000E+00	0.000E+00	4.978E-06	0.000E+00	4.876E-07	2.059E-07	3.169E-08	4.185E-07	0.000E+00	2.103E-02
415	0.000E+00	0.000E+00	4.652E-06	0.000E+00	4.382E-07	1.946E-07	2.955E-08	3.911E-07	0.000E+00	2.112E-02
416	0.000E+00	0.000E+00	6.777E-06	0.000E+00	5.646E-07	2.724E-07	4.259E-08	5.696E-07	0.000E+00	3.199E-02

417	0.000E+00	0.000E+00	6.213E-06	0.000E+00	4.996E-07	2.529E-07	3.899E-08	5.221E-07	0.000E+00	2.958E-02
418	0.000E+00	0.000E+00	6.444E-06	0.000E+00	5.266E-07	2.509E-07	4.037E-08	5.415E-07	0.000E+00	2.353E-02
419	0.000E+00	0.000E+00	8.847E-06	0.000E+00	6.257E-07	3.446E-07	5.496E-08	7.433E-07	0.000E+00	4.471E-02
420	0.000E+00	0.000E+00	9.077E-06	0.000E+00	6.999E-07	3.489E-07	5.662E-08	7.627E-07	0.000E+00	3.545E-02
421	0.000E+00	0.000E+00	8.542E-06	0.000E+00	7.643E-07	3.384E-07	5.389E-08	7.180E-07	0.000E+00	3.320E-02
422	0.000E+00	0.000E+00	1.367E-05	0.000E+00	9.897E-07	5.166E-07	8.490E-08	1.149E-06	0.000E+00	6.916E-02
423	0.000E+00	0.000E+00	1.256E-05	0.000E+00	9.551E-07	4.905E-07	7.835E-08	1.055E-06	0.000E+00	6.023E-02
424	0.000E+00	0.000E+00	1.179E-05	0.000E+00	9.414E-07	4.583E-07	7.374E-08	9.906E-07	0.000E+00	5.239E-02
425	0.000E+00	0.000E+00	2.209E-05	0.000E+00	1.581E-06	8.302E-07	1.370E-07	1.856E-06	0.000E+00	1.129E-01
426	0.000E+00	0.000E+00	1.927E-05	0.000E+00	1.440E-06	7.267E-07	1.198E-07	1.619E-06	0.000E+00	8.970E-02
427	0.000E+00	0.000E+00	1.730E-05	0.000E+00	1.325E-06	6.565E-07	1.078E-07	1.454E-06	0.000E+00	7.680E-02
428	0.000E+00	0.000E+00	3.278E-05	0.000E+00	2.454E-06	1.228E-06	2.038E-07	2.754E-06	0.000E+00	1.731E-01
429	0.000E+00	0.000E+00	2.687E-05	0.000E+00	2.007E-06	1.013E-06	1.671E-07	2.258E-06	0.000E+00	1.261E-01
430	0.000E+00	0.000E+00	2.265E-05	0.000E+00	1.711E-06	8.569E-07	1.410E-07	1.903E-06	0.000E+00	9.574E-02
431	0.000E+00	0.000E+00	4.094E-05	0.000E+00	3.062E-06	1.522E-06	2.544E-07	3.440E-06	0.000E+00	2.456E-01
432	0.000E+00	0.000E+00	3.162E-05	0.000E+00	2.391E-06	1.181E-06	1.967E-07	2.657E-06	0.000E+00	1.632E-01
433	0.000E+00	0.000E+00	2.562E-05	0.000E+00	1.944E-06	9.591E-07	1.594E-07	2.153E-06	0.000E+00	1.189E-01
434	0.000E+00	0.000E+00	4.482E-05	0.000E+00	3.395E-06	1.654E-06	2.787E-07	3.766E-06	0.000E+00	2.563E-01
435	0.000E+00	0.000E+00	3.455E-05	0.000E+00	2.500E-06	1.274E-06	2.142E-07	2.903E-06	0.000E+00	1.733E-01
436	0.000E+00	0.000E+00	2.762E-05	0.000E+00	1.945E-06	1.021E-06	1.710E-07	2.320E-06	0.000E+00	1.281E-01
437	0.000E+00	0.000E+00	4.502E-05	0.000E+00	3.215E-06	1.678E-06	2.791E-07	3.782E-06	0.000E+00	2.096E-01
438	0.000E+00	0.000E+00	3.492E-05	0.000E+00	2.522E-06	1.296E-06	2.166E-07	2.934E-06	0.000E+00	1.463E-01
439	0.000E+00	0.000E+00	2.800E-05	0.000E+00	1.953E-06	1.035E-06	1.733E-07	2.352E-06	0.000E+00	1.114E-01
440	0.000E+00	0.000E+00	4.054E-05	0.000E+00	2.658E-06	1.492E-06	2.501E-07	3.406E-06	0.000E+00	1.510E-01
441	0.000E+00	0.000E+00	3.283E-05	0.000E+00	2.362E-06	1.230E-06	2.037E-07	2.758E-06	0.000E+00	1.196E-01
442	0.000E+00	0.000E+00	2.715E-05	0.000E+00	1.973E-06	1.011E-06	1.685E-07	2.281E-06	0.000E+00	9.637E-02
443	0.000E+00	0.000E+00	3.426E-05	0.000E+00	2.334E-06	1.303E-06	2.121E-07	2.878E-06	0.000E+00	1.119E-01
444	0.000E+00	0.000E+00	2.886E-05	0.000E+00	2.245E-06	1.120E-06	1.802E-07	2.425E-06	0.000E+00	9.494E-02
445	0.000E+00	0.000E+00	2.438E-05	0.000E+00	1.687E-06	9.061E-07	1.508E-07	2.048E-06	0.000E+00	7.715E-02
446	0.000E+00	0.000E+00	2.833E-05	0.000E+00	1.699E-06	1.040E-06	1.739E-07	2.379E-06	0.000E+00	8.127E-02
447	0.000E+00	0.000E+00	2.421E-05	0.000E+00	1.422E-06	8.841E-07	1.485E-07	2.033E-06	0.000E+00	7.713E-02
448	0.000E+00	0.000E+00	2.105E-05	0.000E+00	1.314E-06	7.746E-07	1.295E-07	1.768E-06	0.000E+00	6.774E-02
449	0.000E+00	0.000E+00	2.334E-05	0.000E+00	1.355E-06	8.461E-07	1.430E-07	1.960E-06	0.000E+00	6.107E-02
450	0.000E+00	0.000E+00	2.049E-05	0.000E+00	1.209E-06	7.445E-07	1.256E-07	1.721E-06	0.000E+00	6.048E-02
451	0.000E+00	0.000E+00	1.819E-05	0.000E+00	1.094E-06	6.655E-07	1.117E-07	1.528E-06	0.000E+00	5.761E-02

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** PREDICTED ANNUAL CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	Pb	Mn	Hg	Ni	NAPTH	PAH	PROPL	Se	TOL	XYLEN
1	5.860E-06	3.173E-05	0.000E+00	9.333E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2	8.620E-06	4.729E-05	0.000E+00	1.389E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	8.552E-06	4.695E-05	0.000E+00	1.378E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	1.121E-05	6.115E-05	0.000E+00	1.797E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	1.131E-05	6.171E-05	0.000E+00	1.813E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6	1.030E-05	5.608E-05	0.000E+00	1.648E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7	9.069E-06	4.949E-05	0.000E+00	1.454E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8	9.243E-06	4.998E-05	0.000E+00	1.470E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9	9.661E-06	5.201E-05	0.000E+00	1.531E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
10	1.206E-05	6.569E-05	0.000E+00	1.930E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
11	4.934E-06	2.681E-05	0.000E+00	7.882E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
12	2.161E-05	1.167E-04	0.000E+00	3.432E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
13	9.792E-06	5.124E-05	0.000E+00	1.513E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
14	9.874E-06	5.167E-05	0.000E+00	1.526E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
15	9.628E-06	5.035E-05	0.000E+00	1.487E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
16	1.092E-05	5.717E-05	0.000E+00	1.688E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
17	5.483E-06	2.971E-05	0.000E+00	8.737E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
18	8.384E-06	4.500E-05	0.000E+00	1.325E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
19	8.495E-06	4.493E-05	0.000E+00	1.325E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
20	1.186E-05	6.297E-05	0.000E+00	1.856E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
21	8.934E-06	4.638E-05	0.000E+00	1.371E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
22	8.475E-06	4.345E-05	0.000E+00	1.287E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
23	8.486E-06	4.336E-05	0.000E+00	1.285E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
24	8.404E-06	4.304E-05	0.000E+00	1.275E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
25	8.409E-06	4.328E-05	0.000E+00	1.281E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
26	8.565E-06	4.532E-05	0.000E+00	1.337E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
27	8.628E-06	4.618E-05	0.000E+00	1.360E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
28	9.178E-06	4.928E-05	0.000E+00	1.451E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
29	1.174E-05	6.265E-05	0.000E+00	1.846E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
30	1.250E-05	6.647E-05	0.000E+00	1.959E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
31	1.314E-05	6.965E-05	0.000E+00	2.054E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
32	1.327E-05	7.000E-05	0.000E+00	2.066E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
33	1.479E-05	7.765E-05	0.000E+00	2.292E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
34	1.639E-05	8.583E-05	0.000E+00	2.535E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
35	1.748E-05	9.149E-05	0.000E+00	2.702E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
36	1.815E-05	9.537E-05	0.000E+00	2.815E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
37	1.813E-05	9.558E-05	0.000E+00	2.820E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
38	1.746E-05	9.260E-05	0.000E+00	2.730E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
39	2.142E-05	1.131E-04	0.000E+00	3.337E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
40	2.726E-05	1.435E-04	0.000E+00	4.235E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
41	3.803E-05	1.969E-04	0.000E+00	5.822E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
42	5.907E-05	3.020E-04	0.000E+00	8.945E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

43	4.881E-05	2.544E-04	0.000E+00	7.517E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
44	4.119E-05	2.281E-04	0.000E+00	6.690E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
45	3.846E-05	2.188E-04	0.000E+00	6.397E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
46	2.466E-05	1.387E-04	0.000E+00	4.061E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
47	3.713E-05	2.051E-04	0.000E+00	6.018E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
48	4.614E-05	2.648E-04	0.000E+00	7.733E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
49	5.456E-05	3.133E-04	0.000E+00	9.148E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
50	5.884E-05	3.363E-04	0.000E+00	9.826E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
51	3.215E-05	1.786E-04	0.000E+00	5.235E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
52	2.158E-05	1.190E-04	0.000E+00	3.491E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
53	1.572E-05	8.645E-05	0.000E+00	2.537E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
54	1.370E-05	7.125E-05	0.000E+00	2.106E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
55	1.419E-05	7.593E-05	0.000E+00	2.236E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
56	1.549E-05	8.260E-05	0.000E+00	2.434E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
57	1.574E-05	8.629E-05	0.000E+00	2.534E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
58	1.983E-05	1.083E-04	0.000E+00	3.181E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
59	2.627E-05	1.369E-04	0.000E+00	4.045E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
60	3.152E-05	1.640E-04	0.000E+00	4.848E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
61	3.785E-05	1.979E-04	0.000E+00	5.846E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
62	4.465E-05	2.335E-04	0.000E+00	6.897E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
63	5.199E-05	2.695E-04	0.000E+00	7.969E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
64	4.786E-05	2.480E-04	0.000E+00	7.332E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
65	5.533E-05	2.908E-04	0.000E+00	8.583E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
66	6.711E-05	3.591E-04	0.000E+00	1.058E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
67	8.793E-05	4.843E-04	0.000E+00	1.422E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
68	9.302E-05	5.165E-04	0.000E+00	1.515E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
69	9.362E-05	5.176E-04	0.000E+00	1.518E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
70	9.176E-05	5.059E-04	0.000E+00	1.485E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
71	6.089E-05	3.300E-04	0.000E+00	9.704E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
72	4.545E-05	2.421E-04	0.000E+00	7.135E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
73	3.362E-05	1.825E-04	0.000E+00	5.365E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
74	2.956E-05	1.540E-04	0.000E+00	4.551E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
75	2.616E-05	1.404E-04	0.000E+00	4.133E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
76	2.288E-05	1.254E-04	0.000E+00	3.682E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
77	1.974E-05	1.083E-04	0.000E+00	3.179E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
78	1.776E-05	9.396E-05	0.000E+00	2.771E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
79	2.105E-05	1.090E-04	0.000E+00	3.223E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
80	2.148E-05	1.182E-04	0.000E+00	3.469E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
81	2.482E-05	1.379E-04	0.000E+00	4.042E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
82	2.873E-05	1.613E-04	0.000E+00	4.724E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
83	3.152E-05	1.774E-04	0.000E+00	5.194E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
84	3.412E-05	1.924E-04	0.000E+00	5.630E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
85	3.625E-05	2.047E-04	0.000E+00	5.990E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
86	3.535E-05	1.988E-04	0.000E+00	5.820E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
87	1.940E-05	1.059E-04	0.000E+00	3.112E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
88	1.325E-05	7.102E-05	0.000E+00	2.091E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
89	9.822E-06	5.196E-05	0.000E+00	1.533E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
90	9.331E-06	4.892E-05	0.000E+00	1.445E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
91	4.136E-05	2.297E-04	0.000E+00	6.735E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
92	4.014E-05	2.226E-04	0.000E+00	6.527E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
93	3.877E-05	2.144E-04	0.000E+00	6.288E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
94	3.746E-05	2.059E-04	0.000E+00	6.044E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
95	3.608E-05	1.976E-04	0.000E+00	5.802E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
96	3.474E-05	1.898E-04	0.000E+00	5.577E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
97	3.372E-05	1.829E-04	0.000E+00	5.377E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
98	3.164E-05	1.720E-04	0.000E+00	5.056E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
99	3.055E-05	1.638E-04	0.000E+00	4.822E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
100	2.874E-05	1.536E-04	0.000E+00	4.524E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
101	2.781E-05	1.460E-04	0.000E+00	4.309E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
102	2.749E-05	1.403E-04	0.000E+00	4.156E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
103	4.717E-05	2.623E-04	0.000E+00	7.689E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
104	4.549E-05	2.521E-04	0.000E+00	7.394E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
105	4.350E-05	2.401E-04	0.000E+00	7.045E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
106	4.172E-05	2.286E-04	0.000E+00	6.712E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
107	3.991E-05	2.178E-04	0.000E+00	6.400E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
108	3.817E-05	2.074E-04	0.000E+00	6.097E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
109	3.650E-05	1.968E-04	0.000E+00	5.792E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
110	3.461E-05	1.849E-04	0.000E+00	5.447E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
111	3.248E-05	1.727E-04	0.000E+00	5.091E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
112	3.072E-05	1.620E-04	0.000E+00	4.780E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
113	2.907E-05	1.520E-04	0.000E+00	4.488E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
114	2.840E-05	1.451E-04	0.000E+00	4.299E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
115	5.496E-05	3.059E-04	0.000E+00	8.967E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
116	5.244E-05	2.906E-04	0.000E+00	8.522E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
117	4.940E-05	2.721E-04	0.000E+00	7.986E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
118	4.690E-05	2.559E-04	0.000E+00	7.518E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
119	4.511E-05	2.428E-04	0.000E+00	7.145E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
120	4.198E-05	2.258E-04	0.000E+00	6.647E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
121	3.923E-05	2.102E-04	0.000E+00	6.189E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
122	3.715E-05	1.964E-04	0.000E+00	5.792E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
123	3.477E-05	1.827E-04	0.000E+00	5.393E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
124	3.401E-05	1.741E-04	0.000E+00	5.157E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
125	3.151E-05	1.619E-04	0.000E+00	4.792E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
126	2.933E-05	1.505E-04	0.000E+00	4.456E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
127	6.592E-05	3.675E-04	0.000E+00	1.077E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
128	6.199E-05	3.436E-04	0.000E+00	1.008E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
129	5.718E-05	3.135E-04	0.000E+00	9.207E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
130	5.515E-05	2.937E-04	0.000E+00	8.655E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
131	5.113E-05	2.698E-04	0.000E+00	7.960E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
132	4.721E-05	2.473E-04	0.000E+00	7.302E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
133	4.222E-05	2.237E-04	0.000E+00	6.597E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
134	4.057E-05	2.104E-04	0.000E+00	6.220E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
135	3.797E-05	1.959E-04	0.000E+00	5.797E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
136	3.532E-05	1.827E-04	0.000E+00	5.402E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
137	3.284E-05	1.694E-04	0.000E+00	5.011E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
138	3.058E-05	1.573E-04	0.000E+00	4.657E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
139	8.485E-05	4.694E-04	0.000E+00	1.377E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

140	7.906E-05	4.332E-04	0.000E+00	1.272E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
141	6.929E-05	3.739E-04	0.000E+00	1.100E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
142	6.106E-05	3.247E-04	0.000E+00	9.570E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
143	5.507E-05	2.900E-04	0.000E+00	8.559E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
144	5.029E-05	2.624E-04	0.000E+00	7.753E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
145	4.614E-05	2.399E-04	0.000E+00	7.091E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
146	4.287E-05	2.222E-04	0.000E+00	6.569E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
147	3.976E-05	2.061E-04	0.000E+00	6.094E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
148	3.690E-05	1.912E-04	0.000E+00	5.654E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
149	3.435E-05	1.779E-04	0.000E+00	5.261E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
150	3.184E-05	1.648E-04	0.000E+00	4.875E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
151	4.894E-05	2.536E-04	0.000E+00	7.499E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
152	4.522E-05	2.352E-04	0.000E+00	6.951E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
153	4.199E-05	2.188E-04	0.000E+00	6.466E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
154	3.881E-05	2.009E-04	0.000E+00	5.941E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
155	3.642E-05	1.898E-04	0.000E+00	5.608E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
156	3.347E-05	1.740E-04	0.000E+00	5.142E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
157	2.560E-05	1.321E-04	0.000E+00	3.910E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
158	2.591E-05	1.350E-04	0.000E+00	3.989E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
159	2.353E-05	1.291E-04	0.000E+00	3.790E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
160	2.267E-05	1.252E-04	0.000E+00	3.674E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
161	2.153E-05	1.190E-04	0.000E+00	3.491E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
162	2.056E-05	1.134E-04	0.000E+00	3.327E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
163	1.987E-05	1.091E-04	0.000E+00	3.203E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
164	1.868E-05	1.019E-04	0.000E+00	2.994E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
165	1.707E-05	9.211E-05	0.000E+00	2.710E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
166	1.523E-05	8.154E-05	0.000E+00	2.401E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
167	1.362E-05	7.292E-05	0.000E+00	2.147E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
168	2.938E-05	1.615E-04	0.000E+00	4.741E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
169	2.919E-05	1.613E-04	0.000E+00	4.732E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
170	2.783E-05	1.541E-04	0.000E+00	4.521E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
171	2.624E-05	1.449E-04	0.000E+00	4.251E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
172	2.484E-05	1.365E-04	0.000E+00	4.006E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
173	2.343E-05	1.277E-04	0.000E+00	3.754E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
174	2.130E-05	1.145E-04	0.000E+00	3.370E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
175	1.896E-05	1.003E-04	0.000E+00	2.957E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
176	1.628E-05	8.660E-05	0.000E+00	2.552E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
177	1.439E-05	7.672E-05	0.000E+00	2.260E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
178	4.074E-05	2.187E-04	0.000E+00	6.438E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
179	3.774E-05	2.092E-04	0.000E+00	6.135E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
180	3.539E-05	1.961E-04	0.000E+00	5.750E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
181	3.272E-05	1.798E-04	0.000E+00	5.278E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
182	3.096E-05	1.671E-04	0.000E+00	4.915E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
183	2.723E-05	1.465E-04	0.000E+00	4.311E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
184	2.562E-05	1.310E-04	0.000E+00	3.880E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
185	2.125E-05	1.095E-04	0.000E+00	3.240E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
186	1.766E-05	9.285E-05	0.000E+00	2.740E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
187	1.520E-05	8.126E-05	0.000E+00	2.393E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
188	5.680E-05	3.066E-04	0.000E+00	9.021E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
189	5.222E-05	2.908E-04	0.000E+00	8.523E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
190	4.755E-05	2.628E-04	0.000E+00	7.711E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
191	4.234E-05	2.298E-04	0.000E+00	6.756E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
192	3.679E-05	1.968E-04	0.000E+00	5.796E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
193	3.195E-05	1.669E-04	0.000E+00	4.931E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
194	2.786E-05	1.427E-04	0.000E+00	4.227E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
195	2.275E-05	1.178E-04	0.000E+00	3.484E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
196	1.963E-05	1.020E-04	0.000E+00	3.016E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
197	1.591E-05	8.540E-05	0.000E+00	2.514E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
198	8.957E-05	4.941E-04	0.000E+00	1.450E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
199	8.606E-05	4.815E-04	0.000E+00	1.410E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
200	7.403E-05	4.031E-04	0.000E+00	1.185E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
201	4.467E-05	2.312E-04	0.000E+00	6.839E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
202	3.072E-05	1.589E-04	0.000E+00	4.700E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
203	2.551E-05	1.312E-04	0.000E+00	3.883E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
204	1.961E-05	1.055E-04	0.000E+00	3.105E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
205	1.576E-05	8.557E-05	0.000E+00	2.515E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
206	1.510E-05	8.242E-05	0.000E+00	2.421E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
207	1.514E-05	7.874E-05	0.000E+00	2.327E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
208	1.520E-06	7.892E-06	0.000E+00	2.333E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
209	1.729E-06	9.041E-06	0.000E+00	2.670E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
210	2.024E-06	1.062E-05	0.000E+00	3.135E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
211	2.370E-06	1.251E-05	0.000E+00	3.692E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
212	2.820E-06	1.500E-05	0.000E+00	4.421E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
213	3.501E-06	1.872E-05	0.000E+00	5.515E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
214	4.426E-06	2.385E-05	0.000E+00	7.018E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
215	5.663E-06	3.069E-05	0.000E+00	9.024E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
216	6.751E-06	3.659E-05	0.000E+00	1.076E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
217	7.737E-06	4.215E-05	0.000E+00	1.239E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
218	8.260E-06	4.510E-05	0.000E+00	1.325E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
219	8.526E-06	4.657E-05	0.000E+00	1.368E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
220	8.030E-06	4.370E-05	0.000E+00	1.284E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
221	7.357E-06	4.013E-05	0.000E+00	1.179E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
222	6.759E-06	3.714E-05	0.000E+00	1.090E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
223	6.731E-06	3.695E-05	0.000E+00	1.085E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
224	6.790E-06	3.694E-05	0.000E+00	1.086E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
225	6.740E-06	3.622E-05	0.000E+00	1.066E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
226	6.425E-06	3.435E-05	0.000E+00	1.012E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
227	1.517E-06	7.776E-06	0.000E+00	2.303E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
228	1.770E-06	9.164E-06	0.000E+00	2.710E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
229	2.062E-06	1.077E-05	0.000E+00	3.182E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
230	2.447E-06	1.287E-05	0.000E+00	3.798E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
231	2.937E-06	1.556E-05	0.000E+00	4.588E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
232	3.618E-06	1.934E-05	0.000E+00	5.697E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
233	4.677E-06	2.518E-05	0.000E+00	7.412E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
234	6.152E-06	3.334E-05	0.000E+00	9.803E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
235	7.734E-06	4.201E-05	0.000E+00	1.235E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
236	9.180E-06	5.003E-05	0.000E+00	1.470E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

237	1.003E-05	5.485E-05	0.000E+00	1.611E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
238	1.022E-05	5.583E-05	0.000E+00	1.640E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
239	9.524E-06	5.189E-05	0.000E+00	1.525E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
240	8.701E-06	4.770E-05	0.000E+00	1.401E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
241	8.328E-06	4.586E-05	0.000E+00	1.346E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
242	8.352E-06	4.568E-05	0.000E+00	1.342E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
243	8.147E-06	4.397E-05	0.000E+00	1.294E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
244	7.689E-06	4.111E-05	0.000E+00	1.211E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
245	6.874E-06	3.674E-05	0.000E+00	1.082E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
246	1.402E-06	7.175E-06	0.000E+00	2.125E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
247	1.730E-06	8.833E-06	0.000E+00	2.617E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
248	2.073E-06	1.072E-05	0.000E+00	3.170E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
249	2.496E-06	1.306E-05	0.000E+00	3.858E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
250	3.052E-06	1.608E-05	0.000E+00	4.745E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
251	3.797E-06	2.022E-05	0.000E+00	5.958E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
252	4.921E-06	2.647E-05	0.000E+00	7.790E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
253	6.724E-06	3.646E-05	0.000E+00	1.072E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
254	8.946E-06	4.872E-05	0.000E+00	1.432E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
255	1.115E-05	6.083E-05	0.000E+00	1.787E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
256	1.253E-05	6.858E-05	0.000E+00	2.014E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
257	1.257E-05	6.872E-05	0.000E+00	2.019E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
258	1.179E-05	6.448E-05	0.000E+00	1.894E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
259	1.090E-05	6.004E-05	0.000E+00	1.762E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
260	1.070E-05	5.885E-05	0.000E+00	1.727E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
261	1.023E-05	5.555E-05	0.000E+00	1.633E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
262	9.441E-06	5.054E-05	0.000E+00	1.488E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
263	8.376E-06	4.479E-05	0.000E+00	1.319E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
264	7.050E-06	3.784E-05	0.000E+00	1.114E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
265	1.428E-06	7.231E-06	0.000E+00	2.145E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
266	1.639E-06	8.383E-06	0.000E+00	2.483E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
267	2.008E-06	1.027E-05	0.000E+00	3.042E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
268	2.472E-06	1.277E-05	0.000E+00	3.779E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
269	3.103E-06	1.627E-05	0.000E+00	4.803E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
270	3.942E-06	2.092E-05	0.000E+00	6.167E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
271	5.240E-06	2.810E-05	0.000E+00	8.274E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
272	7.299E-06	3.959E-05	0.000E+00	1.164E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
273	1.056E-05	5.762E-05	0.000E+00	1.693E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
274	1.461E-05	7.809E-05	0.000E+00	2.300E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
275	1.647E-05	8.981E-05	0.000E+00	2.639E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
276	1.633E-05	8.939E-05	0.000E+00	2.625E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
277	1.535E-05	8.446E-05	0.000E+00	2.479E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
278	1.440E-05	7.942E-05	0.000E+00	2.330E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
279	1.372E-05	7.504E-05	0.000E+00	2.204E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
280	1.218E-05	6.545E-05	0.000E+00	1.926E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
281	1.045E-05	5.592E-05	0.000E+00	1.647E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
282	8.653E-06	4.651E-05	0.000E+00	1.369E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
283	6.878E-06	3.707E-05	0.000E+00	1.091E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
284	1.462E-06	7.392E-06	0.000E+00	2.193E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
285	1.707E-06	8.620E-06	0.000E+00	2.557E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
286	1.989E-06	1.019E-05	0.000E+00	3.017E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
287	2.438E-06	1.258E-05	0.000E+00	3.723E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
288	3.062E-06	1.592E-05	0.000E+00	4.705E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
289	4.008E-06	2.111E-05	0.000E+00	6.228E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
290	5.476E-06	2.924E-05	0.000E+00	8.615E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
291	8.001E-06	4.341E-05	0.000E+00	1.276E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
292	1.483E-05	7.590E-05	0.000E+00	2.248E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
293	1.852E-05	1.018E-04	0.000E+00	2.988E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
294	1.100E-05	5.921E-05	0.000E+00	1.743E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
295	8.428E-06	4.555E-05	0.000E+00	1.340E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
296	6.302E-06	3.405E-05	0.000E+00	1.002E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
297	1.337E-06	6.712E-06	0.000E+00	1.993E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
298	1.621E-06	8.127E-06	0.000E+00	2.413E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
299	1.980E-06	9.920E-06	0.000E+00	2.946E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
300	2.366E-06	1.204E-05	0.000E+00	3.569E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
301	2.986E-06	1.545E-05	0.000E+00	4.568E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
302	3.979E-06	2.090E-05	0.000E+00	6.169E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
303	5.635E-06	3.002E-05	0.000E+00	8.846E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
304	8.665E-06	4.688E-05	0.000E+00	1.379E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
305	1.548E-05	8.482E-05	0.000E+00	2.491E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
306	1.090E-05	5.932E-05	0.000E+00	1.743E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
307	7.792E-06	4.239E-05	0.000E+00	1.246E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
308	5.768E-06	3.140E-05	0.000E+00	9.228E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
309	1.146E-06	5.562E-06	0.000E+00	1.659E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
310	1.386E-06	6.854E-06	0.000E+00	2.039E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
311	1.723E-06	8.621E-06	0.000E+00	2.561E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
312	2.179E-06	1.099E-05	0.000E+00	3.262E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
313	2.787E-06	1.419E-05	0.000E+00	4.205E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
314	3.756E-06	1.945E-05	0.000E+00	5.752E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
315	5.423E-06	2.853E-05	0.000E+00	8.420E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
316	8.753E-06	4.701E-05	0.000E+00	1.384E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
317	1.826E-05	1.009E-04	0.000E+00	2.959E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
318	9.947E-06	5.423E-05	0.000E+00	1.593E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
319	6.813E-06	3.705E-05	0.000E+00	1.089E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
320	5.096E-06	2.770E-05	0.000E+00	8.141E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
321	1.013E-06	4.830E-06	0.000E+00	1.444E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
322	1.229E-06	5.816E-06	0.000E+00	1.741E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
323	1.434E-06	6.935E-06	0.000E+00	2.069E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
324	1.751E-06	8.683E-06	0.000E+00	2.582E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
325	2.318E-06	1.168E-05	0.000E+00	3.466E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
326	3.235E-06	1.643E-05	0.000E+00	4.870E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
327	4.701E-06	2.438E-05	0.000E+00	7.207E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
328	7.951E-06	4.196E-05	0.000E+00	1.238E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
329	1.855E-05	1.016E-04	0.000E+00	2.984E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
330	8.495E-06	4.647E-05	0.000E+00	1.365E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
331	6.221E-06	3.388E-05	0.000E+00	9.957E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
332	4.934E-06	2.680E-05	0.000E+00	7.879E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
333	8.684E-07	4.373E-06	0.000E+00	1.298E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

334	1.009E-06	5.071E-06	0.000E+00	1.505E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
335	1.208E-06	6.038E-06	0.000E+00	1.794E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
336	1.502E-06	7.450E-06	0.000E+00	2.215E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
337	1.947E-06	9.573E-06	0.000E+00	2.850E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
338	2.570E-06	1.276E-05	0.000E+00	3.794E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
339	3.870E-06	1.953E-05	0.000E+00	5.796E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
340	6.701E-06	3.464E-05	0.000E+00	1.025E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
341	2.262E-05	1.252E-04	0.000E+00	3.673E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
342	1.117E-05	6.117E-05	0.000E+00	1.796E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
343	7.591E-06	4.137E-05	0.000E+00	1.216E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
344	5.689E-06	3.092E-05	0.000E+00	9.089E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
345	4.442E-06	2.409E-05	0.000E+00	7.084E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
346	8.667E-07	4.082E-06	0.000E+00	1.222E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
347	9.246E-07	4.510E-06	0.000E+00	1.344E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
348	1.055E-06	5.236E-06	0.000E+00	1.557E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
349	1.240E-06	6.263E-06	0.000E+00	1.858E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
350	1.536E-06	7.849E-06	0.000E+00	2.325E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
351	2.034E-06	1.045E-05	0.000E+00	3.093E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
352	3.031E-06	1.554E-05	0.000E+00	4.601E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
353	5.128E-06	2.606E-05	0.000E+00	7.725E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
354	1.565E-05	8.709E-05	0.000E+00	2.552E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
355	8.896E-06	4.883E-05	0.000E+00	1.434E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
356	6.165E-06	3.361E-05	0.000E+00	9.875E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
357	4.697E-06	2.552E-05	0.000E+00	7.503E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
358	3.806E-06	2.067E-05	0.000E+00	6.076E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
359	7.665E-07	3.605E-06	0.000E+00	1.080E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
360	8.796E-07	4.167E-06	0.000E+00	1.247E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
361	9.329E-07	4.650E-06	0.000E+00	1.382E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
362	1.096E-06	5.570E-06	0.000E+00	1.651E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
363	1.339E-06	6.905E-06	0.000E+00	2.043E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
364	1.705E-06	8.919E-06	0.000E+00	2.634E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
365	2.288E-06	1.203E-05	0.000E+00	3.550E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
366	3.570E-06	1.886E-05	0.000E+00	5.563E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
367	7.891E-06	4.205E-05	0.000E+00	1.239E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
368	2.697E-05	1.432E-04	0.000E+00	4.221E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
369	1.984E-05	1.095E-04	0.000E+00	3.213E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
370	1.165E-05	6.425E-05	0.000E+00	1.885E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
371	7.436E-06	4.081E-05	0.000E+00	1.198E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
372	5.248E-06	2.866E-05	0.000E+00	8.420E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
373	3.981E-06	2.167E-05	0.000E+00	6.369E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
374	3.229E-06	1.753E-05	0.000E+00	5.153E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
375	7.217E-07	3.438E-06	0.000E+00	1.028E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
376	8.337E-07	3.990E-06	0.000E+00	1.192E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
377	9.658E-07	4.679E-06	0.000E+00	1.396E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
378	1.031E-06	5.305E-06	0.000E+00	1.570E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
379	1.274E-06	6.636E-06	0.000E+00	1.961E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
380	1.626E-06	8.463E-06	0.000E+00	2.501E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
381	2.177E-06	1.135E-05	0.000E+00	3.353E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
382	3.091E-06	1.633E-05	0.000E+00	4.818E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
383	5.938E-06	3.168E-05	0.000E+00	9.335E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
384	1.219E-05	6.397E-05	0.000E+00	1.889E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
385	1.547E-05	8.090E-05	0.000E+00	2.390E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
386	1.689E-05	8.895E-05	0.000E+00	2.625E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
387	1.568E-05	8.382E-05	0.000E+00	2.469E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
388	1.273E-05	6.912E-05	0.000E+00	2.032E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
389	9.338E-06	5.098E-05	0.000E+00	1.498E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
390	6.610E-06	3.608E-05	0.000E+00	1.060E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
391	4.899E-06	2.675E-05	0.000E+00	7.859E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
392	3.753E-06	2.046E-05	0.000E+00	6.013E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
393	3.037E-06	1.650E-05	0.000E+00	4.852E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
394	7.046E-07	3.419E-06	0.000E+00	1.020E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
395	8.394E-07	4.104E-06	0.000E+00	1.223E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
396	1.031E-06	4.995E-06	0.000E+00	1.490E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
397	1.143E-06	5.703E-06	0.000E+00	1.695E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
398	1.278E-06	6.481E-06	0.000E+00	1.922E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
399	1.479E-06	7.607E-06	0.000E+00	2.252E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
400	1.839E-06	9.661E-06	0.000E+00	2.852E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
401	2.685E-06	1.429E-05	0.000E+00	4.212E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
402	4.793E-06	2.549E-05	0.000E+00	7.514E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
403	7.917E-06	4.158E-05	0.000E+00	1.227E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
404	1.031E-05	5.413E-05	0.000E+00	1.598E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
405	1.149E-05	6.013E-05	0.000E+00	1.776E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
406	1.089E-05	5.809E-05	0.000E+00	1.711E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
407	9.355E-06	5.038E-05	0.000E+00	1.483E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
408	7.417E-06	4.028E-05	0.000E+00	1.184E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
409	5.807E-06	3.151E-05	0.000E+00	9.264E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
410	4.606E-06	2.500E-05	0.000E+00	7.350E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
411	3.674E-06	2.000E-05	0.000E+00	5.877E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
412	2.932E-06	1.595E-05	0.000E+00	4.687E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
413	1.136E-06	5.679E-06	0.000E+00	1.687E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
414	9.718E-07	4.923E-06	0.000E+00	1.460E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
415	9.004E-07	4.588E-06	0.000E+00	1.360E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
416	1.278E-06	6.628E-06	0.000E+00	1.960E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
417	1.164E-06	6.063E-06	0.000E+00	1.792E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
418	1.211E-06	6.294E-06	0.000E+00	1.860E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
419	1.619E-06	8.569E-06	0.000E+00	2.527E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
420	1.687E-06	8.835E-06	0.000E+00	2.609E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
421	1.635E-06	8.393E-06	0.000E+00	2.485E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
422	2.512E-06	1.326E-05	0.000E+00	3.912E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
423	2.328E-06	1.221E-05	0.000E+00	3.606E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
424	2.205E-06	1.150E-05	0.000E+00	3.397E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
425	4.050E-06	2.141E-05	0.000E+00	6.315E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
426	3.560E-06	1.872E-05	0.000E+00	5.525E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
427	3.211E-06	1.683E-05	0.000E+00	4.970E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
428	6.058E-06	3.185E-05	0.000E+00	9.401E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
429	4.965E-06	2.611E-05	0.000E+00	7.706E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
430	4.193E-06	2.202E-05	0.000E+00	6.501E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

431	7.565E-06	3.978E-05	0.000E+00	1.174E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
432	5.855E-06	3.074E-05	0.000E+00	9.076E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
433	4.748E-06	2.492E-05	0.000E+00	7.356E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
434	8.302E-06	4.358E-05	0.000E+00	1.287E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
435	6.347E-06	3.351E-05	0.000E+00	9.886E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
436	5.049E-06	2.674E-05	0.000E+00	7.886E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
437	8.251E-06	4.363E-05	0.000E+00	1.287E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
438	6.414E-06	3.387E-05	0.000E+00	9.991E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
439	5.111E-06	2.710E-05	0.000E+00	7.991E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
440	7.324E-06	3.911E-05	0.000E+00	1.152E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
441	6.025E-06	3.183E-05	0.000E+00	9.389E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
442	4.992E-06	2.634E-05	0.000E+00	7.770E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
443	6.229E-06	3.312E-05	0.000E+00	9.762E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
444	5.372E-06	2.810E-05	0.000E+00	8.300E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
445	4.443E-06	2.358E-05	0.000E+00	6.952E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
446	5.046E-06	2.721E-05	0.000E+00	8.006E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
447	4.299E-06	2.323E-05	0.000E+00	6.834E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
448	3.773E-06	2.026E-05	0.000E+00	5.963E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
449	4.137E-06	2.238E-05	0.000E+00	6.583E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
450	3.641E-06	1.966E-05	0.000E+00	5.785E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
451	3.241E-06	1.747E-05	0.000E+00	5.142E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** PREDICTED ANNUAL CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	Zn	NTXPM
1	4.247E-06	4.053E-01
2	6.363E-06	6.040E-01
3	6.319E-06	5.996E-01
4	8.210E-06	7.810E-01
5	8.284E-06	7.881E-01
6	7.523E-06	7.162E-01
7	6.645E-06	6.321E-01
8	6.683E-06	6.382E-01
9	6.942E-06	6.642E-01
10	8.812E-06	8.389E-01
11	3.593E-06	3.424E-01
12	1.559E-05	1.490E+00
13	6.755E-06	6.544E-01
14	6.811E-06	6.599E-01
15	6.635E-06	6.430E-01
16	7.540E-06	7.302E-01
17	3.977E-06	3.795E-01
18	5.998E-06	5.747E-01
19	5.950E-06	5.738E-01
20	8.352E-06	8.041E-01
21	6.092E-06	5.923E-01
22	5.674E-06	5.549E-01
23	5.655E-06	5.538E-01
24	5.618E-06	5.497E-01
25	5.662E-06	5.527E-01
26	6.004E-06	5.788E-01
27	6.150E-06	5.899E-01
28	6.571E-06	6.294E-01
29	8.334E-06	8.002E-01
30	8.827E-06	8.490E-01
31	9.234E-06	8.896E-01
32	9.261E-06	8.940E-01
33	1.025E-05	9.917E-01
34	1.132E-05	1.096E+00
35	1.206E-05	1.168E+00
36	1.259E-05	1.218E+00
37	1.264E-05	1.221E+00
38	1.228E-05	1.183E+00
39	1.497E-05	1.445E+00
40	1.896E-05	1.833E+00
41	2.583E-05	2.514E+00
42	3.938E-05	3.857E+00
43	3.347E-05	3.249E+00
44	3.081E-05	2.914E+00
45	2.988E-05	2.795E+00
46	1.885E-05	1.772E+00
47	2.768E-05	2.620E+00
48	3.628E-05	3.382E+00
49	4.293E-05	4.001E+00
50	4.601E-05	4.295E+00
51	2.415E-05	2.281E+00
52	1.604E-05	1.519E+00
53	1.164E-05	1.104E+00
54	9.363E-06	9.099E-01
55	1.011E-05	9.697E-01
56	1.098E-05	1.055E+00

57	1.161E-05	1.102E+00
58	1.454E-05	1.383E+00
59	1.801E-05	1.749E+00
60	2.157E-05	2.095E+00
61	2.608E-05	2.528E+00
62	3.077E-05	2.982E+00
63	3.538E-05	3.442E+00
64	3.254E-05	3.167E+00
65	3.840E-05	3.713E+00
66	4.780E-05	4.586E+00
67	6.528E-05	6.185E+00
68	6.986E-05	6.597E+00
69	6.988E-05	6.610E+00
70	6.821E-05	6.461E+00
71	4.418E-05	4.215E+00
72	3.217E-05	3.092E+00
73	2.444E-05	2.331E+00
74	2.026E-05	1.967E+00
75	1.871E-05	1.793E+00
76	1.686E-05	1.601E+00
77	1.456E-05	1.383E+00
78	1.245E-05	1.200E+00
79	1.430E-05	1.392E+00
80	1.593E-05	1.510E+00
81	1.865E-05	1.761E+00
82	2.192E-05	2.061E+00
83	2.413E-05	2.266E+00
84	2.618E-05	2.457E+00
85	2.787E-05	2.614E+00
86	2.702E-05	2.539E+00
87	1.422E-05	1.353E+00
88	9.463E-06	9.071E-01
89	6.883E-06	6.636E-01
90	6.455E-06	6.248E-01
91	3.107E-05	2.933E+00
92	3.008E-05	2.842E+00
93	2.894E-05	2.738E+00
94	2.773E-05	2.629E+00
95	2.656E-05	2.523E+00
96	2.550E-05	2.425E+00
97	2.449E-05	2.336E+00
98	2.305E-05	2.196E+00
99	2.182E-05	2.092E+00
100	2.043E-05	1.961E+00
101	1.927E-05	1.864E+00
102	1.828E-05	1.792E+00
103	3.549E-05	3.350E+00
104	3.407E-05	3.220E+00
105	3.239E-05	3.067E+00
106	3.074E-05	2.919E+00
107	2.925E-05	2.782E+00
108	2.780E-05	2.649E+00
109	2.629E-05	2.514E+00
110	2.460E-05	2.362E+00
111	2.294E-05	2.206E+00
112	2.143E-05	2.069E+00
113	2.002E-05	1.941E+00
114	1.892E-05	1.853E+00
115	4.141E-05	3.907E+00
116	3.926E-05	3.711E+00
117	3.667E-05	3.475E+00
118	3.435E-05	3.268E+00
119	3.240E-05	3.101E+00
120	3.013E-05	2.884E+00
121	2.799E-05	2.684E+00
122	2.600E-05	2.508E+00
123	2.413E-05	2.334E+00
124	2.273E-05	2.224E+00
125	2.116E-05	2.067E+00
126	1.966E-05	1.922E+00
127	4.978E-05	4.693E+00
128	4.644E-05	4.388E+00
129	4.217E-05	4.004E+00
130	3.901E-05	3.751E+00
131	3.570E-05	3.445E+00
132	3.261E-05	3.158E+00
133	2.965E-05	2.857E+00
134	2.761E-05	2.687E+00
135	2.566E-05	2.502E+00
136	2.395E-05	2.333E+00
137	2.218E-05	2.163E+00
138	2.058E-05	2.009E+00
139	6.338E-05	5.994E+00
140	5.826E-05	5.532E+00
141	4.996E-05	4.775E+00
142	4.310E-05	4.146E+00
143	3.834E-05	3.704E+00
144	3.455E-05	3.352E+00
145	3.153E-05	3.064E+00
146	2.915E-05	2.837E+00
147	2.704E-05	2.632E+00
148	2.509E-05	2.442E+00
149	2.334E-05	2.272E+00
150	2.162E-05	2.105E+00
151	3.328E-05	3.239E+00
152	3.091E-05	3.004E+00
153	2.879E-05	2.795E+00

154	2.635E-05	2.565E+00
155	2.497E-05	2.424E+00
156	2.286E-05	2.222E+00
157	1.731E-05	1.688E+00
158	1.776E-05	1.724E+00
159	1.737E-05	1.648E+00
160	1.690E-05	1.600E+00
161	1.606E-05	1.520E+00
162	1.528E-05	1.448E+00
163	1.468E-05	1.393E+00
164	1.367E-05	1.301E+00
165	1.231E-05	1.176E+00
166	1.086E-05	1.041E+00
167	9.709E-06	9.313E-01
168	2.175E-05	2.062E+00
169	2.177E-05	2.060E+00
170	2.082E-05	1.969E+00
171	1.955E-05	1.850E+00
172	1.837E-05	1.743E+00
173	1.714E-05	1.631E+00
174	1.527E-05	1.462E+00
175	1.328E-05	1.281E+00
176	1.150E-05	1.106E+00
177	1.020E-05	9.797E-01
178	2.915E-05	2.793E+00
179	2.827E-05	2.672E+00
180	2.649E-05	2.504E+00
181	2.421E-05	2.296E+00
182	2.232E-05	2.134E+00
183	1.954E-05	1.870E+00
184	1.708E-05	1.673E+00
185	1.433E-05	1.398E+00
186	1.226E-05	1.186E+00
187	1.081E-05	1.038E+00
188	4.098E-05	3.916E+00
189	3.937E-05	3.714E+00
190	3.548E-05	3.357E+00
191	3.078E-05	2.935E+00
192	2.620E-05	2.513E+00
193	2.199E-05	2.132E+00
194	1.863E-05	1.823E+00
195	1.546E-05	1.505E+00
196	1.341E-05	1.303E+00
197	1.138E-05	1.091E+00
198	6.664E-05	6.310E+00
199	6.531E-05	6.149E+00
200	5.407E-05	5.148E+00
201	3.033E-05	2.953E+00
202	2.084E-05	2.029E+00
203	1.715E-05	1.676E+00
204	1.408E-05	1.348E+00
205	1.146E-05	1.093E+00
206	1.106E-05	1.053E+00
207	1.035E-05	1.006E+00
208	1.037E-06	1.008E-01
209	1.191E-06	1.155E-01
210	1.402E-06	1.356E-01
211	1.656E-06	1.598E-01
212	1.991E-06	1.915E-01
213	2.492E-06	2.391E-01
214	3.185E-06	3.046E-01
215	4.108E-06	3.919E-01
216	4.899E-06	4.673E-01
217	5.654E-06	5.382E-01
218	6.056E-06	5.760E-01
219	6.254E-06	5.947E-01
220	5.860E-06	5.581E-01
221	5.387E-06	5.125E-01
222	5.001E-06	4.744E-01
223	4.972E-06	4.718E-01
224	4.954E-06	4.718E-01
225	4.831E-06	4.626E-01
226	4.572E-06	4.387E-01
227	1.015E-06	9.931E-02
228	1.202E-06	1.170E-01
229	1.419E-06	1.376E-01
230	1.699E-06	1.643E-01
231	2.062E-06	1.987E-01
232	2.574E-06	2.470E-01
233	3.362E-06	3.216E-01
234	4.462E-06	4.257E-01
235	5.628E-06	5.365E-01
236	6.714E-06	6.390E-01
237	7.370E-06	7.005E-01
238	7.500E-06	7.131E-01
239	6.962E-06	6.627E-01
240	6.415E-06	6.091E-01
241	6.180E-06	5.856E-01
242	6.139E-06	5.834E-01
243	5.876E-06	5.616E-01
244	5.471E-06	5.251E-01
245	4.888E-06	4.692E-01
246	9.360E-07	9.163E-02
247	1.151E-06	1.128E-01
248	1.405E-06	1.369E-01
249	1.722E-06	1.668E-01
250	2.127E-06	2.054E-01

251	2.685E-06	2.582E-01
252	3.531E-06	3.380E-01
253	4.881E-06	4.656E-01
254	6.535E-06	6.222E-01
255	8.168E-06	7.769E-01
256	9.219E-06	8.758E-01
257	9.232E-06	8.776E-01
258	8.662E-06	8.234E-01
259	8.092E-06	7.668E-01
260	7.927E-06	7.516E-01
261	7.443E-06	7.094E-01
262	6.730E-06	6.454E-01
263	5.961E-06	5.720E-01
264	5.043E-06	4.832E-01
265	9.390E-07	9.235E-02
266	1.094E-06	1.071E-01
267	1.340E-06	1.312E-01
268	1.674E-06	1.631E-01
269	2.146E-06	2.078E-01
270	2.775E-06	2.671E-01
271	3.744E-06	3.589E-01
272	5.302E-06	5.056E-01
273	7.734E-06	7.358E-01
274	1.039E-05	9.973E-01
275	1.205E-05	1.147E+00
276	1.202E-05	1.142E+00
277	1.138E-05	1.079E+00
278	1.071E-05	1.014E+00
279	1.008E-05	9.583E-01
280	8.729E-06	8.358E-01
281	7.444E-06	7.141E-01
282	6.204E-06	5.940E-01
283	4.949E-06	4.734E-01
284	9.589E-07	9.440E-02
285	1.118E-06	1.101E-01
286	1.329E-06	1.301E-01
287	1.648E-06	1.607E-01
288	2.092E-06	2.033E-01
289	2.790E-06	2.695E-01
290	3.890E-06	3.735E-01
291	5.815E-06	5.545E-01
292	9.904E-06	9.693E-01
293	1.370E-05	1.300E+00
294	7.904E-06	7.562E-01
295	6.089E-06	5.817E-01
296	4.552E-06	4.349E-01
297	8.678E-07	8.572E-02
298	1.050E-06	1.038E-01
299	1.281E-06	1.267E-01
300	1.567E-06	1.538E-01
301	2.025E-06	1.973E-01
302	2.759E-06	2.669E-01
303	3.989E-06	3.834E-01
304	6.270E-06	5.987E-01
305	1.141E-05	1.083E+00
306	7.953E-06	7.576E-01
307	5.684E-06	5.414E-01
308	4.211E-06	4.010E-01
309	7.073E-07	7.103E-02
310	8.799E-07	8.753E-02
311	1.113E-06	1.101E-01
312	1.425E-06	1.404E-01
313	1.847E-06	1.812E-01
314	2.552E-06	2.484E-01
315	3.769E-06	3.643E-01
316	6.268E-06	6.004E-01
317	1.361E-05	1.288E+00
318	7.276E-06	6.925E-01
319	4.966E-06	4.731E-01
320	3.711E-06	3.537E-01
321	6.089E-07	6.169E-02
322	7.302E-07	7.428E-02
323	8.804E-07	8.857E-02
324	1.116E-06	1.109E-01
325	1.513E-06	1.492E-01
326	2.136E-06	2.098E-01
327	3.200E-06	3.113E-01
328	5.551E-06	5.358E-01
329	1.366E-05	1.298E+00
330	6.244E-06	5.934E-01
331	4.544E-06	4.327E-01
332	3.591E-06	3.423E-01
333	5.662E-07	5.585E-02
334	6.560E-07	6.476E-02
335	7.790E-07	7.711E-02
336	9.579E-07	9.515E-02
337	1.225E-06	1.223E-01
338	1.641E-06	1.630E-01
339	2.532E-06	2.495E-01
340	4.541E-06	4.424E-01
341	1.692E-05	1.600E+00
342	8.225E-06	7.812E-01
343	5.551E-06	5.284E-01
344	4.144E-06	3.949E-01
345	3.226E-06	3.077E-01
346	5.112E-07	5.213E-02
347	5.749E-07	5.759E-02

348	6.733E-07	6.686E-02
349	8.124E-07	7.999E-02
350	1.023E-06	1.002E-01
351	1.365E-06	1.334E-01
352	2.029E-06	1.985E-01
353	3.389E-06	3.328E-01
354	1.179E-05	1.112E+00
355	6.571E-06	6.236E-01
356	4.509E-06	4.292E-01
357	3.420E-06	3.260E-01
358	2.769E-06	2.639E-01
359	4.512E-07	4.604E-02
360	5.235E-07	5.322E-02
361	5.992E-07	5.939E-02
362	7.245E-07	7.114E-02
363	9.040E-07	8.818E-02
364	1.176E-06	1.139E-01
365	1.589E-06	1.536E-01
366	2.496E-06	2.408E-01
367	5.588E-06	5.370E-01
368	1.899E-05	1.828E+00
369	1.477E-05	1.399E+00
370	8.663E-06	8.205E-01
371	5.491E-06	5.212E-01
372	3.849E-06	3.660E-01
373	2.906E-06	2.768E-01
374	2.348E-06	2.239E-01
375	4.331E-07	4.391E-02
376	5.037E-07	5.095E-02
377	5.945E-07	5.975E-02
378	6.940E-07	6.775E-02
379	8.729E-07	8.474E-02
380	1.113E-06	1.081E-01
381	1.493E-06	1.449E-01
382	2.162E-06	2.086E-01
383	4.213E-06	4.046E-01
384	8.446E-06	8.170E-01
385	1.066E-05	1.033E+00
386	1.176E-05	1.136E+00
387	1.115E-05	1.070E+00
388	9.258E-06	8.827E-01
389	6.844E-06	6.510E-01
390	4.844E-06	4.608E-01
391	3.593E-06	3.417E-01
392	2.746E-06	2.613E-01
393	2.212E-06	2.108E-01
394	4.348E-07	4.367E-02
395	5.238E-07	5.241E-02
396	6.347E-07	6.378E-02
397	7.351E-07	7.283E-02
398	8.421E-07	8.277E-02
399	9.948E-07	9.715E-02
400	1.276E-06	1.234E-01
401	1.898E-06	1.825E-01
402	3.385E-06	3.256E-01
403	5.490E-06	5.310E-01
404	7.145E-06	6.912E-01
405	7.927E-06	7.680E-01
406	7.721E-06	7.418E-01
407	6.726E-06	6.434E-01
408	5.397E-06	5.144E-01
409	4.220E-06	4.024E-01
410	3.349E-06	3.193E-01
411	2.682E-06	2.554E-01
412	2.138E-06	2.036E-01
413	7.328E-07	7.253E-02
414	6.392E-07	6.287E-02
415	5.974E-07	5.859E-02
416	8.700E-07	8.465E-02
417	7.975E-07	7.743E-02
418	8.271E-07	8.038E-02
419	1.135E-06	1.094E-01
420	1.165E-06	1.128E-01
421	1.097E-06	1.072E-01
422	1.755E-06	1.693E-01
423	1.612E-06	1.560E-01
424	1.513E-06	1.468E-01
425	2.835E-06	2.734E-01
426	2.473E-06	2.390E-01
427	2.220E-06	2.150E-01
428	4.207E-06	4.067E-01
429	3.449E-06	3.334E-01
430	2.907E-06	2.812E-01
431	5.254E-06	5.080E-01
432	4.059E-06	3.926E-01
433	3.289E-06	3.182E-01
434	5.753E-06	5.566E-01
435	4.435E-06	4.280E-01
436	3.544E-06	3.415E-01
437	5.778E-06	5.572E-01
438	4.482E-06	4.325E-01
439	3.593E-06	3.461E-01
440	5.202E-06	4.995E-01
441	4.213E-06	4.065E-01
442	3.484E-06	3.363E-01
443	4.397E-06	4.230E-01
444	3.704E-06	3.589E-01

445	3.128E-06	3.012E-01
446	3.634E-06	3.475E-01
447	3.106E-06	2.967E-01
448	2.701E-06	2.587E-01
449	2.994E-06	2.858E-01
450	2.628E-06	2.511E-01
451	2.334E-06	2.232E-01

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00 0.000E+00

GOLDEN QUEEN MINING - SOLEDAD MTN PROJECT - ALL RECEPTORS, 1991 MET, PM10 * OUTPUT OF AMI/SBCAPCD ACE2588 MODEL VERS. 93288 *
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**** RECEPTOR TOTAL CANCER RISK AND EXCESS BURDEN ***

RECEPTOR	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM	POPULATION	BURDEN
1	1.480E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.480E-07	0	0.000E+00
2	2.205E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.205E-07	0	0.000E+00
3	2.190E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.190E-07	0	0.000E+00
4	2.852E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.852E-07	0	0.000E+00
5	2.878E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.878E-07	0	0.000E+00
6	2.615E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.615E-07	0	0.000E+00
7	2.308E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.308E-07	0	0.000E+00
8	2.330E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.330E-07	0	0.000E+00
9	2.424E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.424E-07	0	0.000E+00
10	3.065E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.065E-07	0	0.000E+00
11	1.250E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.250E-07	0	0.000E+00
12	5.438E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.438E-07	0	0.000E+00
13	2.388E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.388E-07	0	0.000E+00
14	2.408E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.408E-07	0	0.000E+00
15	2.346E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.346E-07	0	0.000E+00
16	2.664E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.664E-07	0	0.000E+00
17	1.385E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.385E-07	0	0.000E+00
18	2.097E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.097E-07	0	0.000E+00
19	2.094E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.094E-07	0	0.000E+00
20	2.934E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.934E-07	0	0.000E+00
21	2.164E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.164E-07	0	0.000E+00
22	2.027E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.027E-07	0	0.000E+00
23	2.023E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.023E-07	0	0.000E+00
24	2.007E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.007E-07	0	0.000E+00
25	2.018E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.018E-07	0	0.000E+00
26	2.114E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.114E-07	0	0.000E+00
27	2.154E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.154E-07	0	0.000E+00
28	2.298E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.298E-07	0	0.000E+00
29	2.921E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.921E-07	0	0.000E+00
30	3.098E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.098E-07	0	0.000E+00
31	3.246E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.246E-07	0	0.000E+00
32	3.261E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.261E-07	0	0.000E+00
33	3.618E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.618E-07	0	0.000E+00
34	3.999E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.999E-07	0	0.000E+00
35	4.263E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.263E-07	0	0.000E+00
36	4.443E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.443E-07	0	0.000E+00
37	4.451E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.451E-07	0	0.000E+00
38	4.312E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.312E-07	0	0.000E+00
39	5.269E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.269E-07	0	0.000E+00
40	6.682E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.682E-07	0	0.000E+00
41	9.218E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.218E-07	0	0.000E+00
42	1.408E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.408E-06	0	0.000E+00
43	1.187E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.187E-06	0	0.000E+00
44	1.066E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.066E-06	0	0.000E+00
45	1.022E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.022E-06	0	0.000E+00
46	6.478E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.478E-07	0	0.000E+00
47	9.587E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.587E-07	0	0.000E+00
48	1.238E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.238E-06	0	0.000E+00
49	1.465E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.465E-06	0	0.000E+00
50	1.573E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.573E-06	0	0.000E+00
51	8.359E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.359E-07	0	0.000E+00
52	5.559E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.559E-07	0	0.000E+00
53	4.036E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.036E-07	0	0.000E+00
54	3.332E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.332E-07	0	0.000E+00
55	3.555E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.555E-07	0	0.000E+00
56	3.868E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.868E-07	0	0.000E+00
57	4.027E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.027E-07	0	0.000E+00
58	5.053E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.053E-07	0	0.000E+00
59	6.397E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.397E-07	0	0.000E+00
60	7.656E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.656E-07	0	0.000E+00
61	9.233E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.233E-07	0	0.000E+00
62	1.089E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.089E-06	0	0.000E+00
63	1.257E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.257E-06	0	0.000E+00
64	1.158E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.158E-06	0	0.000E+00
65	1.356E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.356E-06	0	0.000E+00
66	1.675E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.675E-06	0	0.000E+00
67	2.262E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.262E-06	0	0.000E+00
68	2.415E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.415E-06	0	0.000E+00
69	2.418E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.418E-06	0	0.000E+00

70	2.363E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.363E-06	0	0.000E+00
71	1.541E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.541E-06	0	0.000E+00
72	1.130E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.130E-06	0	0.000E+00
73	8.526E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.526E-07	0	0.000E+00
74	7.184E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.184E-07	0	0.000E+00
75	6.574E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.574E-07	0	0.000E+00
76	5.855E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.855E-07	0	0.000E+00
77	5.057E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.057E-07	0	0.000E+00
78	4.403E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.403E-07	0	0.000E+00
79	5.099E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.099E-07	0	0.000E+00
80	5.525E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.525E-07	0	0.000E+00
81	6.444E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.444E-07	0	0.000E+00
82	7.537E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.537E-07	0	0.000E+00
83	8.289E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.289E-07	0	0.000E+00
84	8.987E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.987E-07	0	0.000E+00
85	9.562E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.562E-07	0	0.000E+00
86	9.287E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.287E-07	0	0.000E+00
87	4.943E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.943E-07	0	0.000E+00
88	3.314E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.314E-07	0	0.000E+00
89	2.424E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.424E-07	0	0.000E+00
90	2.282E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.282E-07	0	0.000E+00
91	1.072E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.072E-06	0	0.000E+00
92	1.039E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.039E-06	0	0.000E+00
93	1.000E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.000E-06	0	0.000E+00
94	9.608E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.608E-07	0	0.000E+00
95	9.218E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.218E-07	0	0.000E+00
96	8.856E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.856E-07	0	0.000E+00
97	8.532E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.532E-07	0	0.000E+00
98	8.020E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.020E-07	0	0.000E+00
99	7.640E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.640E-07	0	0.000E+00
100	7.163E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.163E-07	0	0.000E+00
101	6.813E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.813E-07	0	0.000E+00
102	6.541E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.541E-07	0	0.000E+00
103	1.224E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.224E-06	0	0.000E+00
104	1.177E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.177E-06	0	0.000E+00
105	1.121E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.121E-06	0	0.000E+00
106	1.067E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.067E-06	0	0.000E+00
107	1.016E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.016E-06	0	0.000E+00
108	9.677E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.677E-07	0	0.000E+00
109	9.183E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.183E-07	0	0.000E+00
110	8.629E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.629E-07	0	0.000E+00
111	8.060E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.060E-07	0	0.000E+00
112	7.560E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.560E-07	0	0.000E+00
113	7.093E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.093E-07	0	0.000E+00
114	6.767E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.767E-07	0	0.000E+00
115	1.428E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.428E-06	0	0.000E+00
116	1.356E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.356E-06	0	0.000E+00
117	1.270E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.270E-06	0	0.000E+00
118	1.194E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.194E-06	0	0.000E+00
119	1.135E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.135E-06	0	0.000E+00
120	1.054E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.054E-06	0	0.000E+00
121	9.806E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.806E-07	0	0.000E+00
122	9.166E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.166E-07	0	0.000E+00
123	8.528E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.528E-07	0	0.000E+00
124	8.130E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.130E-07	0	0.000E+00
125	7.549E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.549E-07	0	0.000E+00
126	7.018E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.018E-07	0	0.000E+00
127	1.716E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.716E-06	0	0.000E+00
128	1.605E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.605E-06	0	0.000E+00
129	1.464E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.464E-06	0	0.000E+00
130	1.370E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.370E-06	0	0.000E+00
131	1.258E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.258E-06	0	0.000E+00
132	1.155E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.155E-06	0	0.000E+00
133	1.044E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.044E-06	0	0.000E+00
134	9.812E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.812E-07	0	0.000E+00
135	9.137E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.137E-07	0	0.000E+00
136	8.518E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.518E-07	0	0.000E+00
137	7.899E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.899E-07	0	0.000E+00
138	7.338E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.338E-07	0	0.000E+00
139	2.194E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.194E-06	0	0.000E+00
140	2.023E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.023E-06	0	0.000E+00
141	1.745E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.745E-06	0	0.000E+00
142	1.514E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.514E-06	0	0.000E+00
143	1.353E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.353E-06	0	0.000E+00
144	1.224E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.224E-06	0	0.000E+00
145	1.119E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.119E-06	0	0.000E+00
146	1.036E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.036E-06	0	0.000E+00
147	9.611E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.611E-07	0	0.000E+00
148	8.918E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.918E-07	0	0.000E+00
149	8.297E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.297E-07	0	0.000E+00
150	7.688E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.688E-07	0	0.000E+00
151	1.183E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.183E-06	0	0.000E+00
152	1.097E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.097E-06	0	0.000E+00
153	1.021E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.021E-06	0	0.000E+00
154	9.371E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.371E-07	0	0.000E+00
155	8.851E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.851E-07	0	0.000E+00
156	8.114E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.114E-07	0	0.000E+00
157	6.163E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.163E-07	0	0.000E+00
158	6.298E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.298E-07	0	0.000E+00
159	6.024E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.024E-07	0	0.000E+00
160	5.843E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.843E-07	0	0.000E+00
161	5.552E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.552E-07	0	0.000E+00
162	5.288E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.288E-07	0	0.000E+00
163	5.088E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.088E-07	0	0.000E+00
164	4.750E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.750E-07	0	0.000E+00
165	4.294E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.294E-07	0	0.000E+00
166	3.801E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.801E-07	0	0.000E+00

167	3.399E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.399E-07	0	0.000E+00
168	7.538E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.538E-07	0	0.000E+00
169	7.525E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.525E-07	0	0.000E+00
170	7.192E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.192E-07	0	0.000E+00
171	6.759E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.759E-07	0	0.000E+00
172	6.365E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.365E-07	0	0.000E+00
173	5.957E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.957E-07	0	0.000E+00
174	5.338E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.338E-07	0	0.000E+00
175	4.675E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.675E-07	0	0.000E+00
176	4.037E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.037E-07	0	0.000E+00
177	3.576E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.576E-07	0	0.000E+00
178	1.023E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.023E-06	0	0.000E+00
179	9.765E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.765E-07	0	0.000E+00
180	9.148E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.148E-07	0	0.000E+00
181	8.388E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.388E-07	0	0.000E+00
182	7.797E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.797E-07	0	0.000E+00
183	6.830E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.830E-07	0	0.000E+00
184	6.108E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.108E-07	0	0.000E+00
185	5.113E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.113E-07	0	0.000E+00
186	4.331E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.331E-07	0	0.000E+00
187	3.790E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.790E-07	0	0.000E+00
188	1.432E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.432E-06	0	0.000E+00
189	1.358E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.358E-06	0	0.000E+00
190	1.227E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.227E-06	0	0.000E+00
191	1.073E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.073E-06	0	0.000E+00
192	9.183E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.183E-07	0	0.000E+00
193	7.791E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.791E-07	0	0.000E+00
194	6.656E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.656E-07	0	0.000E+00
195	5.501E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.501E-07	0	0.000E+00
196	4.773E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.773E-07	0	0.000E+00
197	3.985E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.985E-07	0	0.000E+00
198	2.308E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.308E-06	0	0.000E+00
199	2.252E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.252E-06	0	0.000E+00
200	1.882E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.882E-06	0	0.000E+00
201	1.078E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.078E-06	0	0.000E+00
202	7.411E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.411E-07	0	0.000E+00
203	6.121E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.121E-07	0	0.000E+00
204	4.926E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.926E-07	0	0.000E+00
205	3.993E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.993E-07	0	0.000E+00
206	3.847E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.847E-07	0	0.000E+00
207	3.675E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.675E-07	0	0.000E+00
208	3.684E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.684E-08	0	0.000E+00
209	4.218E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.218E-08	0	0.000E+00
210	4.954E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.954E-08	0	0.000E+00
211	5.838E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.838E-08	0	0.000E+00
212	6.996E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.996E-08	0	0.000E+00
213	8.734E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.734E-08	0	0.000E+00
214	1.112E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.112E-07	0	0.000E+00
215	1.431E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.431E-07	0	0.000E+00
216	1.706E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.706E-07	0	0.000E+00
217	1.965E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.965E-07	0	0.000E+00
218	2.103E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.103E-07	0	0.000E+00
219	2.171E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.171E-07	0	0.000E+00
220	2.037E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.037E-07	0	0.000E+00
221	1.871E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.871E-07	0	0.000E+00
222	1.732E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.732E-07	0	0.000E+00
223	1.723E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.723E-07	0	0.000E+00
224	1.723E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.723E-07	0	0.000E+00
225	1.689E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.689E-07	0	0.000E+00
226	1.601E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.601E-07	0	0.000E+00
227	3.627E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.627E-08	0	0.000E+00
228	4.278E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.278E-08	0	0.000E+00
229	5.026E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.026E-08	0	0.000E+00
230	6.002E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.002E-08	0	0.000E+00
231	7.258E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.258E-08	0	0.000E+00
232	9.022E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.022E-08	0	0.000E+00
233	1.175E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.175E-07	0	0.000E+00
234	1.555E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.555E-07	0	0.000E+00
235	1.959E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.959E-07	0	0.000E+00
236	2.333E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.333E-07	0	0.000E+00
237	2.558E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.558E-07	0	0.000E+00
238	2.603E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.603E-07	0	0.000E+00
239	2.419E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.419E-07	0	0.000E+00
240	2.224E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.224E-07	0	0.000E+00
241	2.139E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.139E-07	0	0.000E+00
242	2.130E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.130E-07	0	0.000E+00
243	2.050E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.050E-07	0	0.000E+00
244	1.916E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.916E-07	0	0.000E+00
245	1.713E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.713E-07	0	0.000E+00
246	3.348E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.348E-08	0	0.000E+00
247	4.120E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.120E-08	0	0.000E+00
248	5.003E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.003E-08	0	0.000E+00
249	6.095E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.095E-08	0	0.000E+00
250	7.503E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.503E-08	0	0.000E+00
251	9.430E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.430E-08	0	0.000E+00
252	1.234E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.234E-07	0	0.000E+00
253	1.700E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.700E-07	0	0.000E+00
254	2.272E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.272E-07	0	0.000E+00
255	2.837E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.837E-07	0	0.000E+00
256	3.198E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.198E-07	0	0.000E+00
257	3.204E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.204E-07	0	0.000E+00
258	3.006E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.006E-07	0	0.000E+00
259	2.801E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.801E-07	0	0.000E+00
260	2.745E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.745E-07	0	0.000E+00
261	2.590E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.590E-07	0	0.000E+00
262	2.356E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.356E-07	0	0.000E+00
263	2.088E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.088E-07	0	0.000E+00

264	1.764E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.764E-07	0	0.000E+00
265	3.377E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.377E-08	0	0.000E+00
266	3.914E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.914E-08	0	0.000E+00
267	4.791E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.791E-08	0	0.000E+00
268	5.964E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.964E-08	0	0.000E+00
269	7.590E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.590E-08	0	0.000E+00
270	9.760E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.760E-08	0	0.000E+00
271	1.311E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.311E-07	0	0.000E+00
272	1.847E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.847E-07	0	0.000E+00
273	2.688E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.688E-07	0	0.000E+00
274	3.647E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.647E-07	0	0.000E+00
275	4.192E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.192E-07	0	0.000E+00
276	4.169E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.169E-07	0	0.000E+00
277	3.939E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.939E-07	0	0.000E+00
278	3.705E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.705E-07	0	0.000E+00
279	3.499E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.499E-07	0	0.000E+00
280	3.050E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.050E-07	0	0.000E+00
281	2.606E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.606E-07	0	0.000E+00
282	2.169E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.169E-07	0	0.000E+00
283	1.728E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.728E-07	0	0.000E+00
284	3.448E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.448E-08	0	0.000E+00
285	4.025E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.025E-08	0	0.000E+00
286	4.757E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.757E-08	0	0.000E+00
287	5.871E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.871E-08	0	0.000E+00
288	7.432E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.432E-08	0	0.000E+00
289	9.847E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.847E-08	0	0.000E+00
290	1.364E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.364E-07	0	0.000E+00
291	2.025E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.025E-07	0	0.000E+00
292	3.540E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.540E-07	0	0.000E+00
293	4.750E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.750E-07	0	0.000E+00
294	2.761E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.761E-07	0	0.000E+00
295	2.124E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.124E-07	0	0.000E+00
296	1.588E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.588E-07	0	0.000E+00
297	3.130E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.130E-08	0	0.000E+00
298	3.790E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.790E-08	0	0.000E+00
299	4.628E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.628E-08	0	0.000E+00
300	5.621E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.621E-08	0	0.000E+00
301	7.206E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.206E-08	0	0.000E+00
302	9.755E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.755E-08	0	0.000E+00
303	1.400E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.400E-07	0	0.000E+00
304	2.187E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.187E-07	0	0.000E+00
305	3.962E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.962E-07	0	0.000E+00
306	2.767E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.767E-07	0	0.000E+00
307	1.977E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.977E-07	0	0.000E+00
308	1.464E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.464E-07	0	0.000E+00
309	2.598E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.598E-08	0	0.000E+00
310	3.199E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.199E-08	0	0.000E+00
311	4.022E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.022E-08	0	0.000E+00
312	5.128E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.128E-08	0	0.000E+00
313	6.620E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.620E-08	0	0.000E+00
314	9.074E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.074E-08	0	0.000E+00
315	1.331E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.331E-07	0	0.000E+00
316	2.193E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.193E-07	0	0.000E+00
317	4.708E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.708E-07	0	0.000E+00
318	2.530E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.530E-07	0	0.000E+00
319	1.728E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.728E-07	0	0.000E+00
320	1.291E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.291E-07	0	0.000E+00
321	2.255E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.255E-08	0	0.000E+00
322	2.718E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.718E-08	0	0.000E+00
323	3.243E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.243E-08	0	0.000E+00
324	4.055E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.055E-08	0	0.000E+00
325	5.450E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.450E-08	0	0.000E+00
326	7.662E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.662E-08	0	0.000E+00
327	1.137E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.137E-07	0	0.000E+00
328	1.957E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.957E-07	0	0.000E+00
329	4.742E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.742E-07	0	0.000E+00
330	2.167E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.167E-07	0	0.000E+00
331	1.580E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.580E-07	0	0.000E+00
332	1.250E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.250E-07	0	0.000E+00
333	2.049E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.049E-08	0	0.000E+00
334	2.365E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.365E-08	0	0.000E+00
335	2.817E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.817E-08	0	0.000E+00
336	3.477E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.477E-08	0	0.000E+00
337	4.471E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.471E-08	0	0.000E+00
338	5.957E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.957E-08	0	0.000E+00
339	9.113E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.113E-08	0	0.000E+00
340	1.616E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.616E-07	0	0.000E+00
341	5.852E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.852E-07	0	0.000E+00
342	2.853E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.853E-07	0	0.000E+00
343	1.929E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.929E-07	0	0.000E+00
344	1.442E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.442E-07	0	0.000E+00
345	1.123E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.123E-07	0	0.000E+00
346	1.906E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.906E-08	0	0.000E+00
347	2.112E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.112E-08	0	0.000E+00
348	2.446E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.446E-08	0	0.000E+00
349	2.926E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.926E-08	0	0.000E+00
350	3.665E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.665E-08	0	0.000E+00
351	4.875E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.875E-08	0	0.000E+00
352	7.248E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.248E-08	0	0.000E+00
353	1.215E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.215E-07	0	0.000E+00
354	4.064E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.064E-07	0	0.000E+00
355	2.277E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.277E-07	0	0.000E+00
356	1.567E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.567E-07	0	0.000E+00
357	1.190E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.190E-07	0	0.000E+00
358	9.635E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.635E-08	0	0.000E+00
359	1.680E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.680E-08	0	0.000E+00
360	1.948E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.948E-08	0	0.000E+00

361	2.174E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.174E-08	0	0.000E+00
362	2.604E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.604E-08	0	0.000E+00
363	3.227E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.227E-08	0	0.000E+00
364	4.165E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.165E-08	0	0.000E+00
365	5.612E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.612E-08	0	0.000E+00
366	8.793E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.793E-08	0	0.000E+00
367	1.961E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.961E-07	0	0.000E+00
368	6.672E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.672E-07	0	0.000E+00
369	5.109E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.109E-07	0	0.000E+00
370	2.997E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.997E-07	0	0.000E+00
371	1.903E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.903E-07	0	0.000E+00
372	1.336E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.336E-07	0	0.000E+00
373	1.010E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.010E-07	0	0.000E+00
374	8.171E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.171E-08	0	0.000E+00
375	1.601E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.601E-08	0	0.000E+00
376	1.859E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.859E-08	0	0.000E+00
377	2.189E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.189E-08	0	0.000E+00
378	2.480E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.480E-08	0	0.000E+00
379	3.098E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.098E-08	0	0.000E+00
380	3.947E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.947E-08	0	0.000E+00
381	5.295E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.295E-08	0	0.000E+00
382	7.618E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.618E-08	0	0.000E+00
383	1.477E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.477E-07	0	0.000E+00
384	2.981E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.981E-07	0	0.000E+00
385	3.769E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.769E-07	0	0.000E+00
386	4.143E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.143E-07	0	0.000E+00
387	3.904E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.904E-07	0	0.000E+00
388	3.222E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.222E-07	0	0.000E+00
389	2.377E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.377E-07	0	0.000E+00
390	1.682E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.682E-07	0	0.000E+00
391	1.247E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.247E-07	0	0.000E+00
392	9.542E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.542E-08	0	0.000E+00
393	7.695E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.695E-08	0	0.000E+00
394	1.594E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.594E-08	0	0.000E+00
395	1.913E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.913E-08	0	0.000E+00
396	2.331E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.331E-08	0	0.000E+00
397	2.664E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.664E-08	0	0.000E+00
398	3.029E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.029E-08	0	0.000E+00
399	3.553E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.553E-08	0	0.000E+00
400	4.511E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.511E-08	0	0.000E+00
401	6.667E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.667E-08	0	0.000E+00
402	1.189E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.189E-07	0	0.000E+00
403	1.938E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.938E-07	0	0.000E+00
404	2.522E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.522E-07	0	0.000E+00
405	2.802E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.802E-07	0	0.000E+00
406	2.707E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.707E-07	0	0.000E+00
407	2.348E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.348E-07	0	0.000E+00
408	1.878E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.878E-07	0	0.000E+00
409	1.469E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.469E-07	0	0.000E+00
410	1.166E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.166E-07	0	0.000E+00
411	9.324E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.324E-08	0	0.000E+00
412	7.434E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.434E-08	0	0.000E+00
413	2.657E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.657E-08	0	0.000E+00
414	2.301E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.301E-08	0	0.000E+00
415	2.147E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.147E-08	0	0.000E+00
416	3.098E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.098E-08	0	0.000E+00
417	2.836E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.836E-08	0	0.000E+00
418	2.938E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.938E-08	0	0.000E+00
419	4.003E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.003E-08	0	0.000E+00
420	4.123E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.123E-08	0	0.000E+00
421	3.918E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.918E-08	0	0.000E+00
422	6.186E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.186E-08	0	0.000E+00
423	5.705E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.705E-08	0	0.000E+00
424	5.367E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.367E-08	0	0.000E+00
425	9.984E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.984E-08	0	0.000E+00
426	8.729E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.729E-08	0	0.000E+00
427	7.851E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.851E-08	0	0.000E+00
428	1.485E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.485E-07	0	0.000E+00
429	1.218E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.218E-07	0	0.000E+00
430	1.027E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.027E-07	0	0.000E+00
431	1.854E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.854E-07	0	0.000E+00
432	1.433E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.433E-07	0	0.000E+00
433	1.161E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.161E-07	0	0.000E+00
434	2.030E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.030E-07	0	0.000E+00
435	1.561E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.561E-07	0	0.000E+00
436	1.246E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.246E-07	0	0.000E+00
437	2.034E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.034E-07	0	0.000E+00
438	1.578E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.578E-07	0	0.000E+00
439	1.263E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.263E-07	0	0.000E+00
440	1.823E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.823E-07	0	0.000E+00
441	1.484E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.484E-07	0	0.000E+00
442	1.228E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.228E-07	0	0.000E+00
443	1.546E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.546E-07	0	0.000E+00
444	1.312E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.312E-07	0	0.000E+00
445	1.100E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.100E-07	0	0.000E+00
446	1.269E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.269E-07	0	0.000E+00
447	1.083E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.083E-07	0	0.000E+00
448	9.445E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.445E-08	0	0.000E+00
449	1.043E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.043E-07	0	0.000E+00
450	9.166E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.166E-08	0	0.000E+00
451	8.147E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.147E-08	0	0.000E+00

RECEPTOR # 69 HAS MAXIMUM PEAK RISK OF 2.418E-06
PEAK RECEPTOR LOCATED AT (X, Y) = 391247.000 3870518.000
RECEPTOR POPULATION = 0

RECEPTOR BURDEN = 0.000E+00

TOTAL CANCER EXCESS BURDEN FROM ALL RECEPTORS = 0.000E+00
BURDEN COMPUTED WITH ZONE OF IMPACT RISK LEVEL = 1.000E-07

*** 70-YEAR LIFETIME CANCER RISK BY SOURCE FOR PEAK RECEPTOR # 69 ***

SOURCE	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
1	9.160E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.160E-10
2	1.426E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.426E-09
3	6.825E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.825E-09
4	1.202E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.202E-08
5	8.513E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.513E-09
6	8.508E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.508E-09
7	3.007E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.007E-09
8	2.060E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.060E-09
9	1.380E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.380E-09
10	7.104E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.104E-10
11	8.007E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.007E-10
12	2.939E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.939E-10
13	1.310E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.310E-08
14	2.017E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.017E-08
15	9.620E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.620E-08
16	1.663E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.663E-07
17	1.115E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.115E-07
18	1.118E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.118E-07
19	6.421E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.421E-09
20	9.136E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.136E-09
21	4.375E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.375E-08
22	7.571E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.571E-08
23	5.059E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.059E-08
24	4.902E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.902E-08
25	4.787E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.787E-08
26	5.427E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.427E-08
27	2.089E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.089E-07
28	3.978E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.978E-07
29	5.332E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.332E-07
30	3.810E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.810E-08
31	3.568E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.568E-09
32	1.347E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.347E-08
33	2.194E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.194E-08
34	2.503E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.503E-08
35	2.512E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.512E-09
36	1.589E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.589E-08
37	5.912E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.912E-08
38	8.734E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.734E-08
39	9.409E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.409E-08
40	1.121E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.121E-08
41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
45	3.295E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.295E-09
46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	2.418E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.418E-06

RECEPTOR RISK OF 2.418E-06 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 2.418E-06 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07
RECEPTOR POPULATION = 0
RECEPTOR BURDEN = 0.000E+00

*** 70-YEAR LIFETIME CANCER RISK BY POLLUTANT FOR PEAK RECEPTOR # 69 ***

POLLUTANT	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
ACETA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	1.798E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.798E-06
BENZE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	6.014E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.014E-08
Cd	8.494E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.494E-08
Cr	4.635E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.635E-07
HCHO	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	7.489E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.489E-09
Ni	3.948E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.948E-09
PAH	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	2.418E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.418E-06

RECEPTOR RISK OF 2.418E-06 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 2.418E-06 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07
RECEPTOR POPULATION = 0
RECEPTOR BURDEN = 0.000E+00

*** 70-YEAR LIFETIME DOSE (mg/kg/d) BY POLLUTANT FOR PEAK RECEPTOR # 69 ***

POLLUTANT	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
ACETA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	1.557E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.557E-07
BENZE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	7.160E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.160E-09
Cd	5.778E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.778E-09
Cr	9.459E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.459E-10
HCHO	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	2.675E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.675E-08
Ni	4.339E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.339E-09
PAH	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** 44-YEAR LIFETIME CANCER RISK BY SOURCE FOR PEAK RECEPTOR # 69 ***

SOURCE	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
1	5.758E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.758E-10
2	8.961E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.961E-10
3	4.290E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.290E-09
4	7.553E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.553E-09
5	5.351E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.351E-09
6	5.348E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.348E-09
7	1.890E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.890E-09
8	1.295E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.295E-09
9	8.675E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.675E-10
10	4.465E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.465E-10
11	5.033E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.033E-10
12	1.848E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.848E-10
13	8.232E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.232E-09
14	1.268E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.268E-08
15	6.047E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.047E-08
16	1.045E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.045E-07
17	7.010E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.010E-08
18	7.028E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.028E-08
19	4.036E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.036E-09
20	5.743E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.743E-09
21	2.750E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.750E-08
22	4.759E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.759E-08
23	3.180E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.180E-08
24	3.081E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.081E-08
25	3.009E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.009E-08
26	3.411E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.411E-08
27	1.313E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.313E-07
28	2.501E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.501E-07
29	3.352E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.352E-07
30	2.395E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.395E-08
31	2.243E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.243E-09
32	8.466E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.466E-09
33	1.379E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.379E-08
34	1.574E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.574E-08
35	1.579E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.579E-09
36	9.986E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.986E-09
37	3.716E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.716E-08
38	5.490E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.490E-08
39	5.914E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.914E-08
40	7.046E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.046E-09
41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
45	2.071E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.071E-09
46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	1.520E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.520E-06

RECEPTOR RISK OF 1.520E-06 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 1.520E-06 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07

44-YEAR LIFETIME RISK OF 1.520E-06 IS LOWER THAN 70-YEAR LIFETIME RISK OF 2.418E-06

GOLDEN QUEEN MINING - SOLEDAD MTN PROJECT - ALL RECEPTORS, 1991 MET, PM10 * OUTPUT OF AMI/SBCAPCD ACE2588 MODEL VERS. 93288 *
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*** 44-YEAR LIFETIME CANCER RISK BY POLLUTANT FOR PEAK RECEPTOR # 69 ***

POLLUTANT	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
ACETA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	1.130E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.130E-06
BENZE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	3.780E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.780E-08
Cd	5.339E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.339E-08
Cr	2.913E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.913E-07
HCHO	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	4.708E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.708E-09
Ni	2.482E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.482E-09
PAH	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	1.520E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.520E-06

RECEPTOR RISK OF 1.520E-06 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 1.520E-06 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07

44-YEAR LIFETIME RISK OF 1.520E-06 IS LOWER THAN 70-YEAR LIFETIME RISK OF 2.418E-06

GOLDEN QUEEN MINING - SOLEDAD MTN PROJECT - ALL RECEPTORS, 1991 MET, PM10 * OUTPUT OF AMI/SBCAPCD ACE2588 MODEL VERS. 93288 *
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*** 44-YEAR LIFETIME DOSE (mg/kg/d) BY POLLUTANT FOR PEAK RECEPTOR # 69 ***

POLLUTANT	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
ACETA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	1.557E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.557E-07
BENZE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	7.160E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.160E-09
Cd	5.778E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.778E-09
Cr	9.459E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.459E-10
HCHO	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	2.675E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.675E-08
Ni	4.339E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.339E-09
PAH	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

GOLDEN QUEEN MINING - SOLEDAD MTN PROJECT - ALL RECEPTORS, 1991 MET, PM10 * OUTPUT OF AMI/SBCAPCD ACE2588 MODEL VERS. 93288 *
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*** MAXIMUM ACUTE HAZARD INDEX BY POLLUTANT ***

POLLUTANT	PEAK CONC (ug/m3)	BACKGR (ug/m3)	TOTAL (ug/m3)	AEL (ug/m3)	HAZARD INDEX	RECEPTOR
ACROL	0.000E+00	0.000E+00	0.000E+00	2.500E+00	0.000E+00	0
Cu	5.891E-03	0.000E+00	5.891E-03	1.000E+01	5.891E-04	30
HCHO	0.000E+00	0.000E+00	0.000E+00	3.700E+02	0.000E+00	0
HCN	4.528E+01	0.000E+00	4.528E+01	3.300E+03	1.372E-02	34
Hg	0.000E+00	0.000E+00	0.000E+00	3.000E+01	0.000E+00	0
Ni	4.036E-03	0.000E+00	4.036E-03	1.000E+00	4.036E-03	30
Se	0.000E+00	0.000E+00	0.000E+00	2.000E+00	0.000E+00	0
XYLEN	0.000E+00	0.000E+00	0.000E+00	4.400E+03	0.000E+00	0

GOLDEN QUEEN MINING - SOLEDAD MTN PROJECT - ALL RECEPTORS, 1991 MET, PM10 * OUTPUT OF AMI/SBCAPCD ACE2588 MODEL VERS. 93288 *
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*** RECEPTOR ACUTE HAZARD INDICES BY TOXICOLOGICAL ENDPOINTS ***

FROM ALL SOURCES AND POLLUTANTS

RECEPTOR	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
1	0.000E+00	2.180E-03	7.363E-04	0.000E+00	0.000E+00	0.000E+00	1.076E-04	0.000E+00
2	0.000E+00	1.391E-03	5.499E-04	0.000E+00	0.000E+00	0.000E+00	8.028E-05	0.000E+00

3	0.000E+00	1.369E-03	5.608E-04	0.000E+00	0.000E+00	0.000E+00	8.186E-05	0.000E+00
4	0.000E+00	2.547E-03	9.492E-04	0.000E+00	0.000E+00	0.000E+00	1.385E-04	0.000E+00
5	0.000E+00	2.450E-03	9.185E-04	0.000E+00	0.000E+00	0.000E+00	1.340E-04	0.000E+00
6	0.000E+00	2.311E-03	8.954E-04	0.000E+00	0.000E+00	0.000E+00	1.307E-04	0.000E+00
7	0.000E+00	1.281E-03	6.989E-04	0.000E+00	0.000E+00	0.000E+00	1.018E-04	0.000E+00
8	0.000E+00	1.315E-03	6.763E-04	0.000E+00	0.000E+00	0.000E+00	9.873E-05	0.000E+00
9	0.000E+00	1.347E-03	7.077E-04	0.000E+00	0.000E+00	0.000E+00	1.033E-04	0.000E+00
10	0.000E+00	4.377E-03	1.073E-03	0.000E+00	0.000E+00	0.000E+00	1.570E-04	0.000E+00
11	0.000E+00	2.354E-03	6.154E-04	0.000E+00	0.000E+00	0.000E+00	8.979E-05	0.000E+00
12	0.000E+00	7.945E-03	1.431E-03	0.000E+00	0.000E+00	0.000E+00	2.088E-04	0.000E+00
13	0.000E+00	4.443E-03	2.856E-03	0.000E+00	0.000E+00	0.000E+00	4.164E-04	0.000E+00
14	0.000E+00	4.324E-03	2.944E-03	0.000E+00	0.000E+00	0.000E+00	4.292E-04	0.000E+00
15	0.000E+00	3.888E-03	2.979E-03	0.000E+00	0.000E+00	0.000E+00	4.342E-04	0.000E+00
16	0.000E+00	4.880E-03	3.025E-03	0.000E+00	0.000E+00	0.000E+00	4.407E-04	0.000E+00
17	0.000E+00	4.449E-03	1.017E-03	0.000E+00	0.000E+00	0.000E+00	1.486E-04	0.000E+00
18	0.000E+00	4.634E-03	7.978E-04	0.000E+00	0.000E+00	0.000E+00	1.165E-04	0.000E+00
19	0.000E+00	4.486E-03	8.985E-04	0.000E+00	0.000E+00	0.000E+00	1.312E-04	0.000E+00
20	0.000E+00	5.755E-03	9.244E-04	0.000E+00	0.000E+00	0.000E+00	1.350E-04	0.000E+00
21	0.000E+00	1.023E-02	2.232E-03	0.000E+00	0.000E+00	0.000E+00	3.297E-04	0.000E+00
22	0.000E+00	1.029E-02	2.075E-03	0.000E+00	0.000E+00	0.000E+00	3.060E-04	0.000E+00
23	0.000E+00	1.109E-02	2.436E-03	0.000E+00	0.000E+00	0.000E+00	3.574E-04	0.000E+00
24	0.000E+00	1.138E-02	3.173E-03	0.000E+00	0.000E+00	0.000E+00	4.651E-04	0.000E+00
25	0.000E+00	1.140E-02	3.332E-03	0.000E+00	0.000E+00	0.000E+00	4.885E-04	0.000E+00
26	0.000E+00	1.227E-02	2.948E-03	0.000E+00	0.000E+00	0.000E+00	4.305E-04	0.000E+00
27	0.000E+00	7.433E-03	2.236E-03	0.000E+00	0.000E+00	0.000E+00	3.241E-04	0.000E+00
28	0.000E+00	7.778E-03	2.279E-03	0.000E+00	0.000E+00	0.000E+00	3.331E-04	0.000E+00
29	0.000E+00	8.772E-03	3.530E-03	0.000E+00	0.000E+00	0.000E+00	5.161E-04	0.000E+00
30	0.000E+00	9.334E-03	4.036E-03	0.000E+00	0.000E+00	0.000E+00	5.891E-04	0.000E+00
31	0.000E+00	1.093E-02	3.861E-03	0.000E+00	0.000E+00	0.000E+00	5.632E-04	0.000E+00
32	0.000E+00	1.330E-02	3.202E-03	0.000E+00	0.000E+00	0.000E+00	4.666E-04	0.000E+00
33	0.000E+00	1.342E-02	3.023E-03	0.000E+00	0.000E+00	0.000E+00	4.403E-04	0.000E+00
34	0.000E+00	1.372E-02	3.050E-03	0.000E+00	0.000E+00	0.000E+00	4.448E-04	0.000E+00
35	0.000E+00	1.322E-02	2.088E-03	0.000E+00	0.000E+00	0.000E+00	3.053E-04	0.000E+00
36	0.000E+00	1.268E-02	1.720E-03	0.000E+00	0.000E+00	0.000E+00	2.513E-04	0.000E+00
37	0.000E+00	1.211E-02	1.875E-03	0.000E+00	0.000E+00	0.000E+00	2.737E-04	0.000E+00
38	0.000E+00	1.208E-02	9.538E-04	0.000E+00	0.000E+00	0.000E+00	1.394E-04	0.000E+00
39	0.000E+00	1.356E-02	1.028E-03	0.000E+00	0.000E+00	0.000E+00	1.504E-04	0.000E+00
40	0.000E+00	1.353E-02	1.115E-03	0.000E+00	0.000E+00	0.000E+00	1.631E-04	0.000E+00
41	0.000E+00	1.134E-02	1.432E-03	0.000E+00	0.000E+00	0.000E+00	2.096E-04	0.000E+00
42	0.000E+00	6.072E-03	1.481E-03	0.000E+00	0.000E+00	0.000E+00	2.175E-04	0.000E+00
43	0.000E+00	6.346E-03	7.808E-04	0.000E+00	0.000E+00	0.000E+00	1.152E-04	0.000E+00
44	0.000E+00	6.601E-03	5.632E-04	0.000E+00	0.000E+00	0.000E+00	8.183E-05	0.000E+00
45	0.000E+00	6.261E-03	7.031E-04	0.000E+00	0.000E+00	0.000E+00	1.032E-04	0.000E+00
46	0.000E+00	5.840E-03	6.567E-04	0.000E+00	0.000E+00	0.000E+00	9.644E-05	0.000E+00
47	0.000E+00	4.905E-03	7.349E-04	0.000E+00	0.000E+00	0.000E+00	1.084E-04	0.000E+00
48	0.000E+00	3.968E-03	9.740E-04	0.000E+00	0.000E+00	0.000E+00	1.427E-04	0.000E+00
49	0.000E+00	3.266E-03	7.782E-04	0.000E+00	0.000E+00	0.000E+00	1.146E-04	0.000E+00
50	0.000E+00	2.855E-03	9.197E-04	0.000E+00	0.000E+00	0.000E+00	1.354E-04	0.000E+00
51	0.000E+00	2.934E-03	9.171E-04	0.000E+00	0.000E+00	0.000E+00	1.344E-04	0.000E+00
52	0.000E+00	2.944E-03	7.768E-04	0.000E+00	0.000E+00	0.000E+00	1.137E-04	0.000E+00
53	0.000E+00	3.082E-03	6.085E-04	0.000E+00	0.000E+00	0.000E+00	8.937E-05	0.000E+00
54	0.000E+00	3.139E-03	6.404E-04	0.000E+00	0.000E+00	0.000E+00	9.391E-05	0.000E+00
55	0.000E+00	2.688E-03	7.880E-04	0.000E+00	0.000E+00	0.000E+00	1.152E-04	0.000E+00
56	0.000E+00	2.470E-03	9.054E-04	0.000E+00	0.000E+00	0.000E+00	1.325E-04	0.000E+00
57	0.000E+00	2.237E-03	1.002E-03	0.000E+00	0.000E+00	0.000E+00	1.463E-04	0.000E+00
58	0.000E+00	2.190E-03	1.080E-03	0.000E+00	0.000E+00	0.000E+00	1.575E-04	0.000E+00
59	0.000E+00	2.146E-03	1.193E-03	0.000E+00	0.000E+00	0.000E+00	1.738E-04	0.000E+00
60	0.000E+00	2.110E-03	1.397E-03	0.000E+00	0.000E+00	0.000E+00	2.035E-04	0.000E+00
61	0.000E+00	2.064E-03	2.418E-03	0.000E+00	0.000E+00	0.000E+00	3.559E-04	0.000E+00
62	0.000E+00	2.025E-03	2.634E-03	0.000E+00	0.000E+00	0.000E+00	3.891E-04	0.000E+00
63	0.000E+00	1.990E-03	1.796E-03	0.000E+00	0.000E+00	0.000E+00	2.619E-04	0.000E+00
64	0.000E+00	1.877E-03	1.616E-03	0.000E+00	0.000E+00	0.000E+00	2.357E-04	0.000E+00
65	0.000E+00	1.855E-03	1.175E-03	0.000E+00	0.000E+00	0.000E+00	1.721E-04	0.000E+00
66	0.000E+00	1.833E-03	1.385E-03	0.000E+00	0.000E+00	0.000E+00	2.031E-04	0.000E+00
67	0.000E+00	1.813E-03	1.173E-03	0.000E+00	0.000E+00	0.000E+00	1.710E-04	0.000E+00
68	0.000E+00	1.886E-03	1.038E-03	0.000E+00	0.000E+00	0.000E+00	1.534E-04	0.000E+00
69	0.000E+00	2.107E-03	1.566E-03	0.000E+00	0.000E+00	0.000E+00	2.298E-04	0.000E+00
70	0.000E+00	2.411E-03	1.871E-03	0.000E+00	0.000E+00	0.000E+00	2.741E-04	0.000E+00
71	0.000E+00	2.450E-03	2.528E-03	0.000E+00	0.000E+00	0.000E+00	3.743E-04	0.000E+00
72	0.000E+00	2.484E-03	1.451E-03	0.000E+00	0.000E+00	0.000E+00	2.121E-04	0.000E+00
73	0.000E+00	2.494E-03	9.721E-04	0.000E+00	0.000E+00	0.000E+00	1.425E-04	0.000E+00
74	0.000E+00	2.494E-03	1.232E-03	0.000E+00	0.000E+00	0.000E+00	1.799E-04	0.000E+00
75	0.000E+00	2.793E-03	9.703E-04	0.000E+00	0.000E+00	0.000E+00	1.419E-04	0.000E+00
76	0.000E+00	2.975E-03	9.924E-04	0.000E+00	0.000E+00	0.000E+00	1.453E-04	0.000E+00
77	0.000E+00	3.199E-03	1.098E-03	0.000E+00	0.000E+00	0.000E+00	1.606E-04	0.000E+00
78	0.000E+00	3.222E-03	1.090E-03	0.000E+00	0.000E+00	0.000E+00	1.590E-04	0.000E+00
79	0.000E+00	3.447E-03	1.222E-03	0.000E+00	0.000E+00	0.000E+00	1.783E-04	0.000E+00
80	0.000E+00	3.754E-03	1.259E-03	0.000E+00	0.000E+00	0.000E+00	1.837E-04	0.000E+00
81	0.000E+00	4.111E-03	1.158E-03	0.000E+00	0.000E+00	0.000E+00	1.693E-04	0.000E+00
82	0.000E+00	4.560E-03	1.093E-03	0.000E+00	0.000E+00	0.000E+00	1.603E-04	0.000E+00
83	0.000E+00	5.152E-03	1.213E-03	0.000E+00	0.000E+00	0.000E+00	1.779E-04	0.000E+00
84	0.000E+00	6.065E-03	1.257E-03	0.000E+00	0.000E+00	0.000E+00	1.845E-04	0.000E+00
85	0.000E+00	7.713E-03	1.726E-03	0.000E+00	0.000E+00	0.000E+00	2.529E-04	0.000E+00
86	0.000E+00	1.255E-02	3.619E-03	0.000E+00	0.000E+00	0.000E+00	5.319E-04	0.000E+00
87	0.000E+00	1.179E-02	3.306E-03	0.000E+00	0.000E+00	0.000E+00	4.849E-04	0.000E+00
88	0.000E+00	1.217E-02	3.209E-03	0.000E+00	0.000E+00	0.000E+00	4.698E-04	0.000E+00
89	0.000E+00	9.340E-03	3.108E-03	0.000E+00	0.000E+00	0.000E+00	4.545E-04	0.000E+00
90	0.000E+00	9.700E-03	2.746E-03	0.000E+00	0.000E+00	0.000E+00	4.012E-04	0.000E+00
91	0.000E+00	1.800E-03	9.671E-04	0.000E+00	0.000E+00	0.000E+00	1.414E-04	0.000E+00
92	0.000E+00	1.723E-03	1.005E-03	0.000E+00	0.000E+00	0.000E+00	1.468E-04	0.000E+00
93	0.000E+00	1.656E-03	9.616E-04	0.000E+00	0.000E+00	0.000E+00	1.405E-04	0.000E+00
94	0.000E+00	1.632E-03	1.008E-03	0.000E+00	0.000E+00	0.000E+00	1.467E-04	0.000E+00
95	0.000E+00	1.641E-03	1.074E-03	0.000E+00	0.000E+00	0.000E+00	1.563E-04	0.000E+00
96	0.000E+00	1.649E-03	1.079E-03	0.000E+00	0.000E+00	0.000E+00	1.580E-04	0.000E+00
97	0.000E+00	1.660E-03	1.292E-03	0.000E+00	0.000E+00	0.000E+00	1.888E-04	0.000E+00
98	0.000E+00	1.673E-03	1.456E-03	0.000E+00	0.000E+00	0.000E+00	2.132E-04	0.000E+00
99	0.000E+00	1.685E-03	1.263E-03	0.000E+00	0.000E+00	0.000E+00	1.843E-04	0.000E+00

100	0.000E+00	1.697E-03	1.329E-03	0.000E+00	0.000E+00	0.000E+00	1.948E-04	0.000E+00
101	0.000E+00	1.711E-03	1.238E-03	0.000E+00	0.000E+00	0.000E+00	1.806E-04	0.000E+00
102	0.000E+00	1.731E-03	1.400E-03	0.000E+00	0.000E+00	0.000E+00	2.040E-04	0.000E+00
103	0.000E+00	1.785E-03	9.872E-04	0.000E+00	0.000E+00	0.000E+00	1.444E-04	0.000E+00
104	0.000E+00	1.713E-03	9.356E-04	0.000E+00	0.000E+00	0.000E+00	1.369E-04	0.000E+00
105	0.000E+00	1.663E-03	1.001E-03	0.000E+00	0.000E+00	0.000E+00	1.458E-04	0.000E+00
106	0.000E+00	1.674E-03	1.092E-03	0.000E+00	0.000E+00	0.000E+00	1.590E-04	0.000E+00
107	0.000E+00	1.683E-03	1.196E-03	0.000E+00	0.000E+00	0.000E+00	1.749E-04	0.000E+00
108	0.000E+00	1.686E-03	1.346E-03	0.000E+00	0.000E+00	0.000E+00	1.967E-04	0.000E+00
109	0.000E+00	1.705E-03	1.442E-03	0.000E+00	0.000E+00	0.000E+00	2.105E-04	0.000E+00
110	0.000E+00	1.718E-03	1.411E-03	0.000E+00	0.000E+00	0.000E+00	2.057E-04	0.000E+00
111	0.000E+00	1.730E-03	1.190E-03	0.000E+00	0.000E+00	0.000E+00	1.736E-04	0.000E+00
112	0.000E+00	1.743E-03	1.342E-03	0.000E+00	0.000E+00	0.000E+00	1.957E-04	0.000E+00
113	0.000E+00	1.756E-03	1.546E-03	0.000E+00	0.000E+00	0.000E+00	2.253E-04	0.000E+00
114	0.000E+00	1.779E-03	1.618E-03	0.000E+00	0.000E+00	0.000E+00	2.357E-04	0.000E+00
115	0.000E+00	1.776E-03	8.971E-04	0.000E+00	0.000E+00	0.000E+00	1.314E-04	0.000E+00
116	0.000E+00	1.699E-03	9.866E-04	0.000E+00	0.000E+00	0.000E+00	1.437E-04	0.000E+00
117	0.000E+00	1.708E-03	1.102E-03	0.000E+00	0.000E+00	0.000E+00	1.605E-04	0.000E+00
118	0.000E+00	1.719E-03	1.270E-03	0.000E+00	0.000E+00	0.000E+00	1.859E-04	0.000E+00
119	0.000E+00	1.731E-03	1.493E-03	0.000E+00	0.000E+00	0.000E+00	2.183E-04	0.000E+00
120	0.000E+00	1.741E-03	1.583E-03	0.000E+00	0.000E+00	0.000E+00	2.310E-04	0.000E+00
121	0.000E+00	1.753E-03	1.500E-03	0.000E+00	0.000E+00	0.000E+00	2.188E-04	0.000E+00
122	0.000E+00	1.767E-03	1.326E-03	0.000E+00	0.000E+00	0.000E+00	1.933E-04	0.000E+00
123	0.000E+00	1.779E-03	1.433E-03	0.000E+00	0.000E+00	0.000E+00	2.090E-04	0.000E+00
124	0.000E+00	1.800E-03	1.605E-03	0.000E+00	0.000E+00	0.000E+00	2.339E-04	0.000E+00
125	0.000E+00	1.816E-03	1.678E-03	0.000E+00	0.000E+00	0.000E+00	2.444E-04	0.000E+00
126	0.000E+00	1.830E-03	1.748E-03	0.000E+00	0.000E+00	0.000E+00	2.546E-04	0.000E+00
127	0.000E+00	1.759E-03	9.652E-04	0.000E+00	0.000E+00	0.000E+00	1.407E-04	0.000E+00
128	0.000E+00	1.748E-03	1.105E-03	0.000E+00	0.000E+00	0.000E+00	1.610E-04	0.000E+00
129	0.000E+00	1.761E-03	1.306E-03	0.000E+00	0.000E+00	0.000E+00	1.914E-04	0.000E+00
130	0.000E+00	1.776E-03	1.452E-03	0.000E+00	0.000E+00	0.000E+00	2.126E-04	0.000E+00
131	0.000E+00	1.783E-03	1.322E-03	0.000E+00	0.000E+00	0.000E+00	1.935E-04	0.000E+00
132	0.000E+00	1.800E-03	1.642E-03	0.000E+00	0.000E+00	0.000E+00	2.395E-04	0.000E+00
133	0.000E+00	1.805E-03	1.433E-03	0.000E+00	0.000E+00	0.000E+00	2.090E-04	0.000E+00
134	0.000E+00	1.825E-03	1.459E-03	0.000E+00	0.000E+00	0.000E+00	2.128E-04	0.000E+00
135	0.000E+00	1.842E-03	1.594E-03	0.000E+00	0.000E+00	0.000E+00	2.323E-04	0.000E+00
136	0.000E+00	1.855E-03	2.119E-03	0.000E+00	0.000E+00	0.000E+00	3.152E-04	0.000E+00
137	0.000E+00	1.870E-03	1.854E-03	0.000E+00	0.000E+00	0.000E+00	2.700E-04	0.000E+00
138	0.000E+00	1.885E-03	1.826E-03	0.000E+00	0.000E+00	0.000E+00	2.715E-04	0.000E+00
139	0.000E+00	1.803E-03	1.103E-03	0.000E+00	0.000E+00	0.000E+00	1.608E-04	0.000E+00
140	0.000E+00	1.807E-03	1.289E-03	0.000E+00	0.000E+00	0.000E+00	1.893E-04	0.000E+00
141	0.000E+00	1.817E-03	1.480E-03	0.000E+00	0.000E+00	0.000E+00	2.171E-04	0.000E+00
142	0.000E+00	1.823E-03	1.397E-03	0.000E+00	0.000E+00	0.000E+00	2.154E-04	0.000E+00
143	0.000E+00	1.841E-03	1.321E-03	0.000E+00	0.000E+00	0.000E+00	2.032E-04	0.000E+00
144	0.000E+00	1.857E-03	1.463E-03	0.000E+00	0.000E+00	0.000E+00	2.134E-04	0.000E+00
145	0.000E+00	1.869E-03	1.551E-03	0.000E+00	0.000E+00	0.000E+00	2.262E-04	0.000E+00
146	0.000E+00	1.886E-03	1.645E-03	0.000E+00	0.000E+00	0.000E+00	2.398E-04	0.000E+00
147	0.000E+00	1.900E-03	1.896E-03	0.000E+00	0.000E+00	0.000E+00	2.761E-04	0.000E+00
148	0.000E+00	1.915E-03	2.332E-03	0.000E+00	0.000E+00	0.000E+00	3.466E-04	0.000E+00
149	0.000E+00	1.931E-03	2.410E-03	0.000E+00	0.000E+00	0.000E+00	3.570E-04	0.000E+00
150	0.000E+00	1.943E-03	2.336E-03	0.000E+00	0.000E+00	0.000E+00	3.454E-04	0.000E+00
151	0.000E+00	1.933E-03	1.699E-03	0.000E+00	0.000E+00	0.000E+00	2.478E-04	0.000E+00
152	0.000E+00	1.947E-03	2.244E-03	0.000E+00	0.000E+00	0.000E+00	3.348E-04	0.000E+00
153	0.000E+00	1.964E-03	2.561E-03	0.000E+00	0.000E+00	0.000E+00	3.804E-04	0.000E+00
154	0.000E+00	1.983E-03	1.740E-03	0.000E+00	0.000E+00	0.000E+00	2.533E-04	0.000E+00
155	0.000E+00	1.991E-03	2.504E-03	0.000E+00	0.000E+00	0.000E+00	3.691E-04	0.000E+00
156	0.000E+00	2.016E-03	2.359E-03	0.000E+00	0.000E+00	0.000E+00	3.476E-04	0.000E+00
157	0.000E+00	2.498E-03	1.147E-03	0.000E+00	0.000E+00	0.000E+00	1.675E-04	0.000E+00
158	0.000E+00	2.193E-03	9.663E-04	0.000E+00	0.000E+00	0.000E+00	1.425E-04	0.000E+00
159	0.000E+00	1.944E-03	6.196E-04	0.000E+00	0.000E+00	0.000E+00	9.070E-05	0.000E+00
160	0.000E+00	1.752E-03	7.871E-04	0.000E+00	0.000E+00	0.000E+00	1.161E-04	0.000E+00
161	0.000E+00	1.594E-03	8.254E-04	0.000E+00	0.000E+00	0.000E+00	1.205E-04	0.000E+00
162	0.000E+00	1.472E-03	8.314E-04	0.000E+00	0.000E+00	0.000E+00	1.212E-04	0.000E+00
163	0.000E+00	1.485E-03	9.171E-04	0.000E+00	0.000E+00	0.000E+00	1.336E-04	0.000E+00
164	0.000E+00	1.516E-03	9.087E-04	0.000E+00	0.000E+00	0.000E+00	1.331E-04	0.000E+00
165	0.000E+00	1.540E-03	1.408E-03	0.000E+00	0.000E+00	0.000E+00	2.056E-04	0.000E+00
166	0.000E+00	1.567E-03	1.524E-03	0.000E+00	0.000E+00	0.000E+00	2.223E-04	0.000E+00
167	0.000E+00	1.594E-03	1.284E-03	0.000E+00	0.000E+00	0.000E+00	1.871E-04	0.000E+00
168	0.000E+00	2.198E-03	8.086E-04	0.000E+00	0.000E+00	0.000E+00	1.184E-04	0.000E+00
169	0.000E+00	1.933E-03	6.742E-04	0.000E+00	0.000E+00	0.000E+00	9.874E-05	0.000E+00
170	0.000E+00	1.723E-03	8.848E-04	0.000E+00	0.000E+00	0.000E+00	1.292E-04	0.000E+00
171	0.000E+00	1.570E-03	8.698E-04	0.000E+00	0.000E+00	0.000E+00	1.270E-04	0.000E+00
172	0.000E+00	1.541E-03	9.753E-04	0.000E+00	0.000E+00	0.000E+00	1.420E-04	0.000E+00
173	0.000E+00	1.566E-03	9.537E-04	0.000E+00	0.000E+00	0.000E+00	1.398E-04	0.000E+00
174	0.000E+00	1.594E-03	1.390E-03	0.000E+00	0.000E+00	0.000E+00	2.033E-04	0.000E+00
175	0.000E+00	1.624E-03	1.354E-03	0.000E+00	0.000E+00	0.000E+00	1.979E-04	0.000E+00
176	0.000E+00	1.655E-03	1.440E-03	0.000E+00	0.000E+00	0.000E+00	2.098E-04	0.000E+00
177	0.000E+00	1.686E-03	1.543E-03	0.000E+00	0.000E+00	0.000E+00	2.247E-04	0.000E+00
178	0.000E+00	2.175E-03	9.791E-04	0.000E+00	0.000E+00	0.000E+00	1.430E-04	0.000E+00
179	0.000E+00	1.898E-03	7.291E-04	0.000E+00	0.000E+00	0.000E+00	1.069E-04	0.000E+00
180	0.000E+00	1.695E-03	1.008E-03	0.000E+00	0.000E+00	0.000E+00	1.472E-04	0.000E+00
181	0.000E+00	1.602E-03	1.007E-03	0.000E+00	0.000E+00	0.000E+00	1.466E-04	0.000E+00
182	0.000E+00	1.626E-03	1.267E-03	0.000E+00	0.000E+00	0.000E+00	1.851E-04	0.000E+00
183	0.000E+00	1.656E-03	1.336E-03	0.000E+00	0.000E+00	0.000E+00	1.958E-04	0.000E+00
184	0.000E+00	1.695E-03	1.229E-03	0.000E+00	0.000E+00	0.000E+00	1.792E-04	0.000E+00
185	0.000E+00	1.723E-03	1.629E-03	0.000E+00	0.000E+00	0.000E+00	2.373E-04	0.000E+00
186	0.000E+00	1.758E-03	1.596E-03	0.000E+00	0.000E+00	0.000E+00	2.324E-04	0.000E+00
187	0.000E+00	1.793E-03	1.494E-03	0.000E+00	0.000E+00	0.000E+00	2.176E-04	0.000E+00
188	0.000E+00	2.140E-03	1.251E-03	0.000E+00	0.000E+00	0.000E+00	1.834E-04	0.000E+00
189	0.000E+00	1.863E-03	8.068E-04	0.000E+00	0.000E+00	0.000E+00	1.183E-04	0.000E+00
190	0.000E+00	1.681E-03	9.948E-04	0.000E+00	0.000E+00	0.000E+00	1.449E-04	0.000E+00
191	0.000E+00	1.705E-03	1.366E-03	0.000E+00	0.000E+00	0.000E+00	1.998E-04	0.000E+00
192	0.000E+00	1.735E-03	1.454E-03	0.000E+00	0.000E+00	0.000E+00	2.121E-04	0.000E+00
193	0.000E+00	1.767E-03	1.484E-03	0.000E+00	0.000E+00	0.000E+00	2.163E-04	0.000E+00
194	0.000E+00	1.811E-03	1.732E-03	0.000E+00	0.000E+00	0.000E+00	2.523E-04	0.000E+00
195	0.000E+00	1.843E-03	1.585E-03	0.000E+00	0.000E+00	0.000E+00	2.307E-04	0.000E+00
196	0.000E+00	1.888E-03	1.566E-03	0.000E+00	0.000E+00	0.000E+00	2.280E-04	0.000E+00

197	0.000E+00	1.924E-03	1.386E-03	0.000E+00	0.000E+00	0.000E+00	2.018E-04	0.000E+00
198	0.000E+00	2.105E-03	1.499E-03	0.000E+00	0.000E+00	0.000E+00	2.201E-04	0.000E+00
199	0.000E+00	1.832E-03	9.380E-04	0.000E+00	0.000E+00	0.000E+00	1.368E-04	0.000E+00
200	0.000E+00	1.810E-03	1.415E-03	0.000E+00	0.000E+00	0.000E+00	2.075E-04	0.000E+00
201	0.000E+00	1.878E-03	1.563E-03	0.000E+00	0.000E+00	0.000E+00	2.279E-04	0.000E+00
202	0.000E+00	1.956E-03	2.324E-03	0.000E+00	0.000E+00	0.000E+00	3.427E-04	0.000E+00
203	0.000E+00	2.002E-03	1.523E-03	0.000E+00	0.000E+00	0.000E+00	2.218E-04	0.000E+00
204	0.000E+00	2.035E-03	1.241E-03	0.000E+00	0.000E+00	0.000E+00	1.809E-04	0.000E+00
205	0.000E+00	2.092E-03	1.133E-03	0.000E+00	0.000E+00	0.000E+00	1.651E-04	0.000E+00
206	0.000E+00	2.302E-03	9.557E-04	0.000E+00	0.000E+00	0.000E+00	1.397E-04	0.000E+00
207	0.000E+00	2.573E-03	8.750E-04	0.000E+00	0.000E+00	0.000E+00	1.280E-04	0.000E+00
208	0.000E+00	2.293E-03	4.512E-04	0.000E+00	0.000E+00	0.000E+00	6.601E-05	0.000E+00
209	0.000E+00	2.303E-03	5.860E-04	0.000E+00	0.000E+00	0.000E+00	8.567E-05	0.000E+00
210	0.000E+00	2.303E-03	6.484E-04	0.000E+00	0.000E+00	0.000E+00	9.482E-05	0.000E+00
211	0.000E+00	2.326E-03	5.613E-04	0.000E+00	0.000E+00	0.000E+00	8.181E-05	0.000E+00
212	0.000E+00	2.281E-03	7.363E-04	0.000E+00	0.000E+00	0.000E+00	1.075E-04	0.000E+00
213	0.000E+00	2.111E-03	8.499E-04	0.000E+00	0.000E+00	0.000E+00	1.242E-04	0.000E+00
214	0.000E+00	1.924E-03	6.687E-04	0.000E+00	0.000E+00	0.000E+00	9.777E-05	0.000E+00
215	0.000E+00	1.901E-03	8.667E-04	0.000E+00	0.000E+00	0.000E+00	1.266E-04	0.000E+00
216	0.000E+00	1.865E-03	8.279E-04	0.000E+00	0.000E+00	0.000E+00	1.209E-04	0.000E+00
217	0.000E+00	1.889E-03	8.771E-04	0.000E+00	0.000E+00	0.000E+00	1.281E-04	0.000E+00
218	0.000E+00	1.799E-03	7.821E-04	0.000E+00	0.000E+00	0.000E+00	1.142E-04	0.000E+00
219	0.000E+00	1.615E-03	1.002E-03	0.000E+00	0.000E+00	0.000E+00	1.468E-04	0.000E+00
220	0.000E+00	1.510E-03	5.976E-04	0.000E+00	0.000E+00	0.000E+00	8.758E-05	0.000E+00
221	0.000E+00	1.368E-03	3.570E-04	0.000E+00	0.000E+00	0.000E+00	5.220E-05	0.000E+00
222	0.000E+00	1.241E-03	4.912E-04	0.000E+00	0.000E+00	0.000E+00	7.172E-05	0.000E+00
223	0.000E+00	1.176E-03	5.806E-04	0.000E+00	0.000E+00	0.000E+00	8.461E-05	0.000E+00
224	0.000E+00	1.199E-03	6.278E-04	0.000E+00	0.000E+00	0.000E+00	9.151E-05	0.000E+00
225	0.000E+00	1.223E-03	6.339E-04	0.000E+00	0.000E+00	0.000E+00	9.248E-05	0.000E+00
226	0.000E+00	1.245E-03	7.058E-04	0.000E+00	0.000E+00	0.000E+00	1.031E-04	0.000E+00
227	0.000E+00	2.370E-03	6.659E-04	0.000E+00	0.000E+00	0.000E+00	9.740E-05	0.000E+00
228	0.000E+00	2.500E-03	5.691E-04	0.000E+00	0.000E+00	0.000E+00	8.332E-05	0.000E+00
229	0.000E+00	2.532E-03	5.832E-04	0.000E+00	0.000E+00	0.000E+00	8.525E-05	0.000E+00
230	0.000E+00	2.617E-03	6.957E-04	0.000E+00	0.000E+00	0.000E+00	1.017E-04	0.000E+00
231	0.000E+00	2.470E-03	6.130E-04	0.000E+00	0.000E+00	0.000E+00	8.940E-05	0.000E+00
232	0.000E+00	2.335E-03	8.104E-04	0.000E+00	0.000E+00	0.000E+00	1.184E-04	0.000E+00
233	0.000E+00	2.188E-03	8.858E-04	0.000E+00	0.000E+00	0.000E+00	1.294E-04	0.000E+00
234	0.000E+00	2.102E-03	7.783E-04	0.000E+00	0.000E+00	0.000E+00	1.137E-04	0.000E+00
235	0.000E+00	2.087E-03	8.762E-04	0.000E+00	0.000E+00	0.000E+00	1.279E-04	0.000E+00
236	0.000E+00	2.067E-03	9.166E-04	0.000E+00	0.000E+00	0.000E+00	1.338E-04	0.000E+00
237	0.000E+00	1.960E-03	8.135E-04	0.000E+00	0.000E+00	0.000E+00	1.188E-04	0.000E+00
238	0.000E+00	1.756E-03	9.995E-04	0.000E+00	0.000E+00	0.000E+00	1.467E-04	0.000E+00
239	0.000E+00	1.530E-03	5.913E-04	0.000E+00	0.000E+00	0.000E+00	8.667E-05	0.000E+00
240	0.000E+00	1.401E-03	5.341E-04	0.000E+00	0.000E+00	0.000E+00	7.799E-05	0.000E+00
241	0.000E+00	1.264E-03	5.669E-04	0.000E+00	0.000E+00	0.000E+00	8.263E-05	0.000E+00
242	0.000E+00	1.246E-03	6.712E-04	0.000E+00	0.000E+00	0.000E+00	9.783E-05	0.000E+00
243	0.000E+00	1.277E-03	6.517E-04	0.000E+00	0.000E+00	0.000E+00	9.512E-05	0.000E+00
244	0.000E+00	1.306E-03	8.094E-04	0.000E+00	0.000E+00	0.000E+00	1.182E-04	0.000E+00
245	0.000E+00	1.325E-03	9.183E-04	0.000E+00	0.000E+00	0.000E+00	1.340E-04	0.000E+00
246	0.000E+00	2.633E-03	5.655E-04	0.000E+00	0.000E+00	0.000E+00	8.265E-05	0.000E+00
247	0.000E+00	2.637E-03	6.870E-04	0.000E+00	0.000E+00	0.000E+00	1.004E-04	0.000E+00
248	0.000E+00	2.730E-03	6.871E-04	0.000E+00	0.000E+00	0.000E+00	1.005E-04	0.000E+00
249	0.000E+00	2.862E-03	5.692E-04	0.000E+00	0.000E+00	0.000E+00	8.322E-05	0.000E+00
250	0.000E+00	2.851E-03	7.476E-04	0.000E+00	0.000E+00	0.000E+00	1.093E-04	0.000E+00
251	0.000E+00	2.744E-03	6.586E-04	0.000E+00	0.000E+00	0.000E+00	9.614E-05	0.000E+00
252	0.000E+00	2.462E-03	9.100E-04	0.000E+00	0.000E+00	0.000E+00	1.329E-04	0.000E+00
253	0.000E+00	2.392E-03	8.704E-04	0.000E+00	0.000E+00	0.000E+00	1.271E-04	0.000E+00
254	0.000E+00	2.339E-03	9.542E-04	0.000E+00	0.000E+00	0.000E+00	1.393E-04	0.000E+00
255	0.000E+00	2.333E-03	9.397E-04	0.000E+00	0.000E+00	0.000E+00	1.372E-04	0.000E+00
256	0.000E+00	2.086E-03	8.453E-04	0.000E+00	0.000E+00	0.000E+00	1.234E-04	0.000E+00
257	0.000E+00	1.870E-03	9.709E-04	0.000E+00	0.000E+00	0.000E+00	1.427E-04	0.000E+00
258	0.000E+00	1.618E-03	5.992E-04	0.000E+00	0.000E+00	0.000E+00	8.783E-05	0.000E+00
259	0.000E+00	1.420E-03	6.120E-04	0.000E+00	0.000E+00	0.000E+00	8.936E-05	0.000E+00
260	0.000E+00	1.304E-03	6.883E-04	0.000E+00	0.000E+00	0.000E+00	1.003E-04	0.000E+00
261	0.000E+00	1.336E-03	6.681E-04	0.000E+00	0.000E+00	0.000E+00	9.736E-05	0.000E+00
262	0.000E+00	1.371E-03	9.423E-04	0.000E+00	0.000E+00	0.000E+00	1.377E-04	0.000E+00
263	0.000E+00	1.396E-03	1.011E-03	0.000E+00	0.000E+00	0.000E+00	1.475E-04	0.000E+00
264	0.000E+00	1.427E-03	1.188E-03	0.000E+00	0.000E+00	0.000E+00	1.731E-04	0.000E+00
265	0.000E+00	2.631E-03	7.192E-04	0.000E+00	0.000E+00	0.000E+00	1.052E-04	0.000E+00
266	0.000E+00	2.853E-03	6.508E-04	0.000E+00	0.000E+00	0.000E+00	9.524E-05	0.000E+00
267	0.000E+00	2.903E-03	6.455E-04	0.000E+00	0.000E+00	0.000E+00	9.437E-05	0.000E+00
268	0.000E+00	3.010E-03	7.721E-04	0.000E+00	0.000E+00	0.000E+00	1.129E-04	0.000E+00
269	0.000E+00	3.091E-03	6.322E-04	0.000E+00	0.000E+00	0.000E+00	9.254E-05	0.000E+00
270	0.000E+00	3.119E-03	8.034E-04	0.000E+00	0.000E+00	0.000E+00	1.174E-04	0.000E+00
271	0.000E+00	2.877E-03	7.140E-04	0.000E+00	0.000E+00	0.000E+00	1.043E-04	0.000E+00
272	0.000E+00	2.682E-03	1.036E-03	0.000E+00	0.000E+00	0.000E+00	1.513E-04	0.000E+00
273	0.000E+00	2.675E-03	1.029E-03	0.000E+00	0.000E+00	0.000E+00	1.503E-04	0.000E+00
274	0.000E+00	2.602E-03	9.117E-04	0.000E+00	0.000E+00	0.000E+00	1.331E-04	0.000E+00
275	0.000E+00	2.257E-03	8.766E-04	0.000E+00	0.000E+00	0.000E+00	1.280E-04	0.000E+00
276	0.000E+00	1.907E-03	9.114E-04	0.000E+00	0.000E+00	0.000E+00	1.344E-04	0.000E+00
277	0.000E+00	1.624E-03	6.245E-04	0.000E+00	0.000E+00	0.000E+00	9.125E-05	0.000E+00
278	0.000E+00	1.407E-03	7.508E-04	0.000E+00	0.000E+00	0.000E+00	1.094E-04	0.000E+00
279	0.000E+00	1.407E-03	7.828E-04	0.000E+00	0.000E+00	0.000E+00	1.140E-04	0.000E+00
280	0.000E+00	1.449E-03	1.122E-03	0.000E+00	0.000E+00	0.000E+00	1.639E-04	0.000E+00
281	0.000E+00	1.490E-03	1.103E-03	0.000E+00	0.000E+00	0.000E+00	1.610E-04	0.000E+00
282	0.000E+00	1.526E-03	1.330E-03	0.000E+00	0.000E+00	0.000E+00	1.938E-04	0.000E+00
283	0.000E+00	1.574E-03	1.169E-03	0.000E+00	0.000E+00	0.000E+00	1.703E-04	0.000E+00
284	0.000E+00	2.669E-03	7.410E-04	0.000E+00	0.000E+00	0.000E+00	1.082E-04	0.000E+00
285	0.000E+00	2.891E-03	7.885E-04	0.000E+00	0.000E+00	0.000E+00	1.152E-04	0.000E+00
286	0.000E+00	3.016E-03	8.002E-04	0.000E+00	0.000E+00	0.000E+00	1.170E-04	0.000E+00
287	0.000E+00	3.185E-03	7.355E-04	0.000E+00	0.000E+00	0.000E+00	1.076E-04	0.000E+00
288	0.000E+00	3.416E-03	7.799E-04	0.000E+00	0.000E+00	0.000E+00	1.140E-04	0.000E+00
289	0.000E+00	3.609E-03	8.102E-04	0.000E+00	0.000E+00	0.000E+00	1.185E-04	0.000E+00
290	0.000E+00	3.475E-03	8.609E-04	0.000E+00	0.000E+00	0.000E+00	1.257E-04	0.000E+00
291	0.000E+00	2.961E-03	8.263E-04	0.000E+00	0.000E+00	0.000E+00	1.208E-04	0.000E+00
292	0.000E+00	3.091E-03	1.646E-03	0.000E+00	0.000E+00	0.000E+00	2.421E-04	0.000E+00
293	0.000E+00	2.934E-03	1.062E-03	0.000E+00	0.000E+00	0.000E+00	1.552E-04	0.000E+00

294	0.000E+00	1.644E-03	1.383E-03	0.000E+00	0.000E+00	0.000E+00	2.015E-04	0.000E+00
295	0.000E+00	1.711E-03	1.347E-03	0.000E+00	0.000E+00	0.000E+00	1.962E-04	0.000E+00
296	0.000E+00	1.748E-03	1.133E-03	0.000E+00	0.000E+00	0.000E+00	1.652E-04	0.000E+00
297	0.000E+00	2.504E-03	5.975E-04	0.000E+00	0.000E+00	0.000E+00	8.705E-05	0.000E+00
298	0.000E+00	2.965E-03	6.815E-04	0.000E+00	0.000E+00	0.000E+00	9.940E-05	0.000E+00
299	0.000E+00	3.137E-03	7.584E-04	0.000E+00	0.000E+00	0.000E+00	1.108E-04	0.000E+00
300	0.000E+00	3.340E-03	8.407E-04	0.000E+00	0.000E+00	0.000E+00	1.229E-04	0.000E+00
301	0.000E+00	3.550E-03	9.036E-04	0.000E+00	0.000E+00	0.000E+00	1.321E-04	0.000E+00
302	0.000E+00	3.928E-03	8.561E-04	0.000E+00	0.000E+00	0.000E+00	1.252E-04	0.000E+00
303	0.000E+00	4.241E-03	9.400E-04	0.000E+00	0.000E+00	0.000E+00	1.374E-04	0.000E+00
304	0.000E+00	3.647E-03	9.159E-04	0.000E+00	0.000E+00	0.000E+00	1.337E-04	0.000E+00
305	0.000E+00	3.638E-03	1.065E-03	0.000E+00	0.000E+00	0.000E+00	1.556E-04	0.000E+00
306	0.000E+00	1.869E-03	1.282E-03	0.000E+00	0.000E+00	0.000E+00	1.868E-04	0.000E+00
307	0.000E+00	1.940E-03	1.088E-03	0.000E+00	0.000E+00	0.000E+00	1.586E-04	0.000E+00
308	0.000E+00	1.957E-03	9.765E-04	0.000E+00	0.000E+00	0.000E+00	1.425E-04	0.000E+00
309	0.000E+00	2.704E-03	4.150E-04	0.000E+00	0.000E+00	0.000E+00	6.082E-05	0.000E+00
310	0.000E+00	2.903E-03	4.960E-04	0.000E+00	0.000E+00	0.000E+00	7.212E-05	0.000E+00
311	0.000E+00	3.007E-03	5.955E-04	0.000E+00	0.000E+00	0.000E+00	8.669E-05	0.000E+00
312	0.000E+00	3.454E-03	6.660E-04	0.000E+00	0.000E+00	0.000E+00	9.712E-05	0.000E+00
313	0.000E+00	3.752E-03	7.404E-04	0.000E+00	0.000E+00	0.000E+00	1.082E-04	0.000E+00
314	0.000E+00	4.145E-03	8.726E-04	0.000E+00	0.000E+00	0.000E+00	1.275E-04	0.000E+00
315	0.000E+00	4.735E-03	1.032E-03	0.000E+00	0.000E+00	0.000E+00	1.508E-04	0.000E+00
316	0.000E+00	5.078E-03	1.029E-03	0.000E+00	0.000E+00	0.000E+00	1.504E-04	0.000E+00
317	0.000E+00	4.542E-03	1.075E-03	0.000E+00	0.000E+00	0.000E+00	1.575E-04	0.000E+00
318	0.000E+00	2.194E-03	9.709E-04	0.000E+00	0.000E+00	0.000E+00	1.418E-04	0.000E+00
319	0.000E+00	2.204E-03	8.375E-04	0.000E+00	0.000E+00	0.000E+00	1.224E-04	0.000E+00
320	0.000E+00	2.286E-03	6.098E-04	0.000E+00	0.000E+00	0.000E+00	8.911E-05	0.000E+00
321	0.000E+00	2.578E-03	8.261E-04	0.000E+00	0.000E+00	0.000E+00	1.214E-04	0.000E+00
322	0.000E+00	2.849E-03	8.387E-04	0.000E+00	0.000E+00	0.000E+00	1.233E-04	0.000E+00
323	0.000E+00	3.140E-03	8.507E-04	0.000E+00	0.000E+00	0.000E+00	1.251E-04	0.000E+00
324	0.000E+00	3.293E-03	8.609E-04	0.000E+00	0.000E+00	0.000E+00	1.266E-04	0.000E+00
325	0.000E+00	3.764E-03	8.674E-04	0.000E+00	0.000E+00	0.000E+00	1.276E-04	0.000E+00
326	0.000E+00	4.372E-03	9.015E-04	0.000E+00	0.000E+00	0.000E+00	1.319E-04	0.000E+00
327	0.000E+00	5.022E-03	1.069E-03	0.000E+00	0.000E+00	0.000E+00	1.564E-04	0.000E+00
328	0.000E+00	6.789E-03	1.225E-03	0.000E+00	0.000E+00	0.000E+00	1.792E-04	0.000E+00
329	0.000E+00	6.761E-03	1.370E-03	0.000E+00	0.000E+00	0.000E+00	2.003E-04	0.000E+00
330	0.000E+00	2.665E-03	6.831E-04	0.000E+00	0.000E+00	0.000E+00	9.977E-05	0.000E+00
331	0.000E+00	2.703E-03	6.682E-04	0.000E+00	0.000E+00	0.000E+00	9.770E-05	0.000E+00
332	0.000E+00	2.566E-03	6.761E-04	0.000E+00	0.000E+00	0.000E+00	9.889E-05	0.000E+00
333	0.000E+00	2.510E-03	2.258E-03	0.000E+00	0.000E+00	0.000E+00	3.300E-04	0.000E+00
334	0.000E+00	2.692E-03	2.361E-03	0.000E+00	0.000E+00	0.000E+00	3.450E-04	0.000E+00
335	0.000E+00	2.924E-03	2.470E-03	0.000E+00	0.000E+00	0.000E+00	3.609E-04	0.000E+00
336	0.000E+00	3.247E-03	2.582E-03	0.000E+00	0.000E+00	0.000E+00	3.772E-04	0.000E+00
337	0.000E+00	3.745E-03	2.691E-03	0.000E+00	0.000E+00	0.000E+00	3.930E-04	0.000E+00
338	0.000E+00	4.488E-03	2.782E-03	0.000E+00	0.000E+00	0.000E+00	4.062E-04	0.000E+00
339	0.000E+00	5.296E-03	2.823E-03	0.000E+00	0.000E+00	0.000E+00	4.122E-04	0.000E+00
340	0.000E+00	7.010E-03	2.740E-03	0.000E+00	0.000E+00	0.000E+00	4.003E-04	0.000E+00
341	0.000E+00	3.292E-03	6.527E-04	0.000E+00	0.000E+00	0.000E+00	9.583E-05	0.000E+00
342	0.000E+00	3.417E-03	7.534E-04	0.000E+00	0.000E+00	0.000E+00	1.101E-04	0.000E+00
343	0.000E+00	3.351E-03	7.687E-04	0.000E+00	0.000E+00	0.000E+00	1.123E-04	0.000E+00
344	0.000E+00	3.095E-03	7.126E-04	0.000E+00	0.000E+00	0.000E+00	1.040E-04	0.000E+00
345	0.000E+00	2.880E-03	6.221E-04	0.000E+00	0.000E+00	0.000E+00	9.077E-05	0.000E+00
346	0.000E+00	2.568E-03	2.651E-03	0.000E+00	0.000E+00	0.000E+00	3.876E-04	0.000E+00
347	0.000E+00	2.676E-03	2.672E-03	0.000E+00	0.000E+00	0.000E+00	3.907E-04	0.000E+00
348	0.000E+00	2.601E-03	2.689E-03	0.000E+00	0.000E+00	0.000E+00	3.933E-04	0.000E+00
349	0.000E+00	2.442E-03	2.707E-03	0.000E+00	0.000E+00	0.000E+00	3.959E-04	0.000E+00
350	0.000E+00	3.414E-03	2.735E-03	0.000E+00	0.000E+00	0.000E+00	4.000E-04	0.000E+00
351	0.000E+00	3.920E-03	2.787E-03	0.000E+00	0.000E+00	0.000E+00	4.077E-04	0.000E+00
352	0.000E+00	4.451E-03	2.879E-03	0.000E+00	0.000E+00	0.000E+00	4.212E-04	0.000E+00
353	0.000E+00	6.623E-03	3.004E-03	0.000E+00	0.000E+00	0.000E+00	4.397E-04	0.000E+00
354	0.000E+00	4.753E-03	6.633E-04	0.000E+00	0.000E+00	0.000E+00	9.711E-05	0.000E+00
355	0.000E+00	4.199E-03	5.516E-04	0.000E+00	0.000E+00	0.000E+00	8.055E-05	0.000E+00
356	0.000E+00	3.846E-03	4.970E-04	0.000E+00	0.000E+00	0.000E+00	7.250E-05	0.000E+00
357	0.000E+00	3.492E-03	4.588E-04	0.000E+00	0.000E+00	0.000E+00	6.689E-05	0.000E+00
358	0.000E+00	3.210E-03	4.282E-04	0.000E+00	0.000E+00	0.000E+00	6.242E-05	0.000E+00
359	0.000E+00	2.610E-03	2.108E-03	0.000E+00	0.000E+00	0.000E+00	3.070E-04	0.000E+00
360	0.000E+00	2.834E-03	2.107E-03	0.000E+00	0.000E+00	0.000E+00	3.068E-04	0.000E+00
361	0.000E+00	3.070E-03	2.100E-03	0.000E+00	0.000E+00	0.000E+00	3.056E-04	0.000E+00
362	0.000E+00	3.328E-03	2.083E-03	0.000E+00	0.000E+00	0.000E+00	3.030E-04	0.000E+00
363	0.000E+00	3.631E-03	2.054E-03	0.000E+00	0.000E+00	0.000E+00	2.985E-04	0.000E+00
364	0.000E+00	4.038E-03	2.017E-03	0.000E+00	0.000E+00	0.000E+00	2.929E-04	0.000E+00
365	0.000E+00	4.626E-03	1.980E-03	0.000E+00	0.000E+00	0.000E+00	2.874E-04	0.000E+00
366	0.000E+00	5.512E-03	1.937E-03	0.000E+00	0.000E+00	0.000E+00	2.808E-04	0.000E+00
367	0.000E+00	7.276E-03	1.972E-03	0.000E+00	0.000E+00	0.000E+00	2.857E-04	0.000E+00
368	0.000E+00	9.912E-03	1.625E-03	0.000E+00	0.000E+00	0.000E+00	2.371E-04	0.000E+00
369	0.000E+00	6.459E-03	8.569E-04	0.000E+00	0.000E+00	0.000E+00	1.263E-04	0.000E+00
370	0.000E+00	5.192E-03	5.126E-04	0.000E+00	0.000E+00	0.000E+00	7.475E-05	0.000E+00
371	0.000E+00	4.463E-03	5.936E-04	0.000E+00	0.000E+00	0.000E+00	8.712E-05	0.000E+00
372	0.000E+00	3.983E-03	5.480E-04	0.000E+00	0.000E+00	0.000E+00	8.042E-05	0.000E+00
373	0.000E+00	3.621E-03	5.059E-04	0.000E+00	0.000E+00	0.000E+00	7.391E-05	0.000E+00
374	0.000E+00	3.312E-03	4.637E-04	0.000E+00	0.000E+00	0.000E+00	6.778E-05	0.000E+00
375	0.000E+00	2.054E-03	6.010E-04	0.000E+00	0.000E+00	0.000E+00	8.772E-05	0.000E+00
376	0.000E+00	2.059E-03	6.474E-04	0.000E+00	0.000E+00	0.000E+00	9.447E-05	0.000E+00
377	0.000E+00	2.030E-03	6.757E-04	0.000E+00	0.000E+00	0.000E+00	9.858E-05	0.000E+00
378	0.000E+00	2.403E-03	6.773E-04	0.000E+00	0.000E+00	0.000E+00	9.879E-05	0.000E+00
379	0.000E+00	3.289E-03	6.349E-04	0.000E+00	0.000E+00	0.000E+00	9.257E-05	0.000E+00
380	0.000E+00	4.001E-03	5.981E-04	0.000E+00	0.000E+00	0.000E+00	8.765E-05	0.000E+00
381	0.000E+00	4.616E-03	8.403E-04	0.000E+00	0.000E+00	0.000E+00	1.224E-04	0.000E+00
382	0.000E+00	5.528E-03	9.712E-04	0.000E+00	0.000E+00	0.000E+00	1.413E-04	0.000E+00
383	0.000E+00	7.073E-03	2.549E-03	0.000E+00	0.000E+00	0.000E+00	3.711E-04	0.000E+00
384	0.000E+00	7.701E-03	3.062E-03	0.000E+00	0.000E+00	0.000E+00	4.462E-04	0.000E+00
385	0.000E+00	9.775E-03	2.634E-03	0.000E+00	0.000E+00	0.000E+00	3.845E-04	0.000E+00
386	0.000E+00	9.513E-03	1.885E-03	0.000E+00	0.000E+00	0.000E+00	2.751E-04	0.000E+00
387	0.000E+00	9.567E-03	1.167E-03	0.000E+00	0.000E+00	0.000E+00	1.702E-04	0.000E+00
388	0.000E+00	6.531E-03	1.035E-03	0.000E+00	0.000E+00	0.000E+00	1.515E-04	0.000E+00
389	0.000E+00	5.186E-03	1.103E-03	0.000E+00	0.000E+00	0.000E+00	1.614E-04	0.000E+00
390	0.000E+00	4.441E-03	3.696E-04	0.000E+00	0.000E+00	0.000E+00	5.458E-05	0.000E+00

391	0.000E+00	3.861E-03	3.835E-04	0.000E+00	0.000E+00	0.000E+00	5.585E-05	0.000E+00
392	0.000E+00	3.481E-03	4.225E-04	0.000E+00	0.000E+00	0.000E+00	6.159E-05	0.000E+00
393	0.000E+00	3.284E-03	4.404E-04	0.000E+00	0.000E+00	0.000E+00	6.424E-05	0.000E+00
394	0.000E+00	2.515E-03	5.540E-04	0.000E+00	0.000E+00	0.000E+00	8.079E-05	0.000E+00
395	0.000E+00	2.562E-03	5.060E-04	0.000E+00	0.000E+00	0.000E+00	7.377E-05	0.000E+00
396	0.000E+00	2.917E-03	4.555E-04	0.000E+00	0.000E+00	0.000E+00	6.656E-05	0.000E+00
397	0.000E+00	3.147E-03	5.201E-04	0.000E+00	0.000E+00	0.000E+00	7.600E-05	0.000E+00
398	0.000E+00	2.780E-03	5.633E-04	0.000E+00	0.000E+00	0.000E+00	8.211E-05	0.000E+00
399	0.000E+00	3.657E-03	8.318E-04	0.000E+00	0.000E+00	0.000E+00	1.212E-04	0.000E+00
400	0.000E+00	3.867E-03	7.381E-04	0.000E+00	0.000E+00	0.000E+00	1.075E-04	0.000E+00
401	0.000E+00	3.889E-03	1.153E-03	0.000E+00	0.000E+00	0.000E+00	1.682E-04	0.000E+00
402	0.000E+00	3.613E-03	2.490E-03	0.000E+00	0.000E+00	0.000E+00	3.631E-04	0.000E+00
403	0.000E+00	3.641E-03	3.046E-03	0.000E+00	0.000E+00	0.000E+00	4.438E-04	0.000E+00
404	0.000E+00	5.263E-03	2.329E-03	0.000E+00	0.000E+00	0.000E+00	3.402E-04	0.000E+00
405	0.000E+00	5.614E-03	1.625E-03	0.000E+00	0.000E+00	0.000E+00	2.372E-04	0.000E+00
406	0.000E+00	5.382E-03	9.573E-04	0.000E+00	0.000E+00	0.000E+00	1.398E-04	0.000E+00
407	0.000E+00	5.212E-03	9.037E-04	0.000E+00	0.000E+00	0.000E+00	1.319E-04	0.000E+00
408	0.000E+00	5.155E-03	9.095E-04	0.000E+00	0.000E+00	0.000E+00	1.331E-04	0.000E+00
409	0.000E+00	4.382E-03	9.606E-04	0.000E+00	0.000E+00	0.000E+00	1.405E-04	0.000E+00
410	0.000E+00	3.851E-03	3.299E-04	0.000E+00	0.000E+00	0.000E+00	4.860E-05	0.000E+00
411	0.000E+00	3.537E-03	3.352E-04	0.000E+00	0.000E+00	0.000E+00	4.935E-05	0.000E+00
412	0.000E+00	3.181E-03	3.311E-04	0.000E+00	0.000E+00	0.000E+00	4.842E-05	0.000E+00
413	0.000E+00	2.922E-03	7.552E-04	0.000E+00	0.000E+00	0.000E+00	1.100E-04	0.000E+00
414	0.000E+00	2.404E-03	4.937E-04	0.000E+00	0.000E+00	0.000E+00	7.201E-05	0.000E+00
415	0.000E+00	2.017E-03	5.118E-04	0.000E+00	0.000E+00	0.000E+00	7.588E-05	0.000E+00
416	0.000E+00	2.806E-03	5.938E-04	0.000E+00	0.000E+00	0.000E+00	8.657E-05	0.000E+00
417	0.000E+00	2.271E-03	3.896E-04	0.000E+00	0.000E+00	0.000E+00	5.838E-05	0.000E+00
418	0.000E+00	1.990E-03	6.634E-04	0.000E+00	0.000E+00	0.000E+00	9.686E-05	0.000E+00
419	0.000E+00	2.782E-03	4.937E-04	0.000E+00	0.000E+00	0.000E+00	7.224E-05	0.000E+00
420	0.000E+00	2.253E-03	1.197E-03	0.000E+00	0.000E+00	0.000E+00	1.752E-04	0.000E+00
421	0.000E+00	2.100E-03	1.896E-03	0.000E+00	0.000E+00	0.000E+00	2.765E-04	0.000E+00
422	0.000E+00	2.959E-03	2.005E-03	0.000E+00	0.000E+00	0.000E+00	2.930E-04	0.000E+00
423	0.000E+00	2.512E-03	1.905E-03	0.000E+00	0.000E+00	0.000E+00	2.779E-04	0.000E+00
424	0.000E+00	2.257E-03	1.842E-03	0.000E+00	0.000E+00	0.000E+00	2.688E-04	0.000E+00
425	0.000E+00	3.041E-03	2.748E-03	0.000E+00	0.000E+00	0.000E+00	4.003E-04	0.000E+00
426	0.000E+00	2.645E-03	2.644E-03	0.000E+00	0.000E+00	0.000E+00	3.851E-04	0.000E+00
427	0.000E+00	2.346E-03	2.506E-03	0.000E+00	0.000E+00	0.000E+00	3.652E-04	0.000E+00
428	0.000E+00	3.047E-03	2.962E-03	0.000E+00	0.000E+00	0.000E+00	4.317E-04	0.000E+00
429	0.000E+00	2.653E-03	2.826E-03	0.000E+00	0.000E+00	0.000E+00	4.120E-04	0.000E+00
430	0.000E+00	2.403E-03	2.677E-03	0.000E+00	0.000E+00	0.000E+00	3.903E-04	0.000E+00
431	0.000E+00	3.363E-03	2.174E-03	0.000E+00	0.000E+00	0.000E+00	3.175E-04	0.000E+00
432	0.000E+00	2.586E-03	2.060E-03	0.000E+00	0.000E+00	0.000E+00	3.009E-04	0.000E+00
433	0.000E+00	2.335E-03	1.934E-03	0.000E+00	0.000E+00	0.000E+00	2.824E-04	0.000E+00
434	0.000E+00	4.308E-03	1.346E-03	0.000E+00	0.000E+00	0.000E+00	1.966E-04	0.000E+00
435	0.000E+00	3.413E-03	1.115E-03	0.000E+00	0.000E+00	0.000E+00	1.631E-04	0.000E+00
436	0.000E+00	2.718E-03	9.369E-04	0.000E+00	0.000E+00	0.000E+00	1.372E-04	0.000E+00
437	0.000E+00	4.395E-03	9.074E-04	0.000E+00	0.000E+00	0.000E+00	1.325E-04	0.000E+00
438	0.000E+00	3.550E-03	7.716E-04	0.000E+00	0.000E+00	0.000E+00	1.128E-04	0.000E+00
439	0.000E+00	3.137E-03	6.233E-04	0.000E+00	0.000E+00	0.000E+00	9.117E-05	0.000E+00
440	0.000E+00	4.117E-03	8.122E-04	0.000E+00	0.000E+00	0.000E+00	1.186E-04	0.000E+00
441	0.000E+00	3.691E-03	9.340E-04	0.000E+00	0.000E+00	0.000E+00	1.363E-04	0.000E+00
442	0.000E+00	3.093E-03	9.187E-04	0.000E+00	0.000E+00	0.000E+00	1.341E-04	0.000E+00
443	0.000E+00	4.181E-03	7.688E-04	0.000E+00	0.000E+00	0.000E+00	1.122E-04	0.000E+00
444	0.000E+00	3.538E-03	7.463E-04	0.000E+00	0.000E+00	0.000E+00	1.089E-04	0.000E+00
445	0.000E+00	3.176E-03	6.334E-04	0.000E+00	0.000E+00	0.000E+00	9.254E-05	0.000E+00
446	0.000E+00	3.983E-03	6.538E-04	0.000E+00	0.000E+00	0.000E+00	9.580E-05	0.000E+00
447	0.000E+00	3.489E-03	6.822E-04	0.000E+00	0.000E+00	0.000E+00	9.961E-05	0.000E+00
448	0.000E+00	3.135E-03	6.325E-04	0.000E+00	0.000E+00	0.000E+00	9.236E-05	0.000E+00
449	0.000E+00	3.881E-03	8.275E-04	0.000E+00	0.000E+00	0.000E+00	1.210E-04	0.000E+00
450	0.000E+00	3.456E-03	6.979E-04	0.000E+00	0.000E+00	0.000E+00	1.021E-04	0.000E+00
451	0.000E+00	3.167E-03	5.780E-04	0.000E+00	0.000E+00	0.000E+00	8.445E-05	0.000E+00

RECEPTOR # 34 HAS MAXIMUM ACUTE HAZARD INDEX OF 1.372E-02

*** ACUTE HAZARD INDEX BY POLLUTANT FOR PEAK RECEPTOR # 34 ***

POLLUTANT	CONC (ug/m3)	BACKGR (ug/m3)	AEL (ug/m3)	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
ACROL	0.000E+00	0.000E+00	2.500E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	4.448E-03	0.000E+00	1.000E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.448E-04	0.000E+00
HCHO	0.000E+00	0.000E+00	3.700E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	4.528E+01	0.000E+00	3.300E+03	0.000E+00	1.372E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	0.000E+00	0.000E+00	3.000E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	3.050E-03	0.000E+00	1.000E+00	0.000E+00	0.000E+00	3.050E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	2.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	0.000E+00	0.000E+00	4.400E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
			SUM =	0.000E+00	1.372E-02	3.050E-03	0.000E+00	0.000E+00	0.000E+00	4.448E-04	0.000E+00

*** ACUTE HAZARD INDEX BY SOURCE FOR PEAK RECEPTOR # 34 ***

POLLUTANT ACROL AEL (ug/m3) = 2.500E+00 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Cu AEL (ug/m3) = 1.000E+01 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.244E-09	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.239E-07	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.260E-07	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.274E-08	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.121E-08	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.229E-06	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.382E-07	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.844E-04	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.034E-04	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.425E-04	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.066E-08	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.062E-06	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.082E-06	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.526E-07	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.969E-07	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.111E-10	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.200E-06	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.218E-06	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.895E-07	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.082E-07	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.688E-10	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.883E-08	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.783E-07	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.946E-07	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.139E-10	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.295E-08	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.226E-07	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.687E-07	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.668E-11	0.000E+00

URCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.641E-08	0.000E+00
URCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.607E-07	0.000E+00
URCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.334E-07	0.000E+00
URCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.448E-04	0.000E+00

POLLUTANT HCHO AEL (ug/m3) = 3.700E+02 BACKGR. (ug/m3) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
OURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT HCN AEL (ug/m3) = 3.300E+03 BACKGR. (ug/m3) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	1.047E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	3.248E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	1.372E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Hg AEL (ug/m3) = 3.000E+01 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Ni AEL (ug/m3) = 1.000E+00 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	4.524E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	4.507E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	4.584E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	1.917E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	2.952E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	2.919E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	2.335E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	1.273E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 11	0.000E+00	0.000E+00	7.139E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	9.836E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	7.363E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	7.332E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	7.466E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	3.123E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	4.810E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	2.900E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	3.818E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	3.876E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	1.558E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	2.573E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	1.165E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	3.370E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	3.301E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	4.795E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	3.623E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	1.048E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	1.027E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	1.491E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	1.804E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	5.220E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	5.112E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	7.426E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	3.050E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Se AEL (ug/m3) = 2.000E+00 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT XYLEN AEL (ug/m3) = 4.400E+03 BACKGR. (ug/m3) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** MAXIMUM CHRONIC EXPOSURE BY POLLUTANT FROM ALL SOURCES ***

POL.	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOT MILK	NON-INH DOSE SUM	ACCEPTABL ORAL DOSE	INH CONC (ug/m3)	BACKGR (ug/m3)	AEL (ug/m3)	HAZARD INDEX	REC.
	****PATHWAY DOSE (mg/kg-d)****													
ACETA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.00E+00	0.00E+00	0
ACROL	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-02	0.00E+00	0
As	1.56E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-03	5.45E-04	0.00E+00	5.00E-01	1.09E-03	69
BENZE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.10E+01	0.00E+00	0
Be	8.06E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.00E-03	2.82E-05	0.00E+00	4.80E-03	5.88E-03	42
Cd	5.85E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-03	2.05E-05	0.00E+00	3.50E+00	5.85E-06	68
Cr	9.46E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.00E-03	3.31E-06	0.00E+00	2.00E-03	1.66E-03	69
Cu	1.31E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.57E-05	0.00E+00	2.40E+00	1.91E-05	69
HCHO	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E+00	0.00E+00	0
HCN	9.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.31E+00	0.00E+00	7.00E+01	4.73E-02	87
Pb	2.67E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.30E-04	9.36E-05	0.00E+00	1.50E+00	6.24E-05	69
Mn	1.48E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.18E-04	0.00E+00	4.00E-01	1.29E-03	69
Hg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-04	0.00E+00	0.00E+00	3.00E-01	0.00E+00	0
Ni	4.34E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-05	0.00E+00	2.40E-01	6.33E-05	69
NAPTH	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.00E-03	0.00E+00	0.00E+00	1.40E+01	0.00E+00	0
Se	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.00E-01	0.00E+00	0
TOL	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E+02	0.00E+00	0
XYLEN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+02	0.00E+00	0
Zn	2.00E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.99E-05	0.00E+00	3.50E+01	2.00E-06	69

*** RECEPTOR CHRONIC HAZARD INDICES BY TOXICOLOGICAL ENDPOINTS ***
FROM ALL SOURCES AND POLLUTANTS

RECEPTOR	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
1	7.023E-05	1.686E-03	7.795E-06	1.096E-04	1.014E-04	3.907E-06	6.491E-04	6.620E-05

2	1.051E-04	1.792E-03	1.153E-05	1.630E-04	1.510E-04	5.747E-06	8.963E-04	9.921E-05
3	1.044E-04	1.780E-03	1.145E-05	1.619E-04	1.499E-04	5.701E-06	8.859E-04	9.853E-05
4	1.357E-04	2.628E-03	1.496E-05	2.110E-04	1.953E-04	7.470E-06	1.196E-03	1.280E-04
5	1.369E-04	2.585E-03	1.509E-05	2.129E-04	1.971E-04	7.539E-06	1.208E-03	1.292E-04
6	1.244E-04	2.337E-03	1.373E-05	1.935E-04	1.791E-04	6.864E-06	1.110E-03	1.173E-04
7	1.098E-04	1.678E-03	1.211E-05	1.707E-04	1.581E-04	6.046E-06	9.684E-04	1.036E-04
8	1.105E-04	1.683E-03	1.229E-05	1.725E-04	1.596E-04	6.162E-06	1.032E-03	1.042E-04
9	1.149E-04	1.742E-03	1.282E-05	1.795E-04	1.662E-04	6.441E-06	1.100E-03	1.082E-04
10	1.457E-04	5.469E-03	1.608E-05	2.268E-04	2.100E-04	8.040E-06	1.299E-03	1.374E-04
11	5.941E-05	1.256E-03	6.573E-06	9.250E-05	8.564E-05	3.289E-06	5.379E-04	5.601E-05
12	2.579E-04	7.826E-03	2.870E-05	4.026E-04	3.726E-04	1.440E-05	2.426E-03	2.431E-04
13	1.120E-04	6.031E-03	1.283E-05	1.773E-04	1.639E-04	6.528E-06	1.257E-03	1.053E-04
14	1.129E-04	6.222E-03	1.294E-05	1.788E-04	1.653E-04	6.582E-06	1.268E-03	1.061E-04
15	1.100E-04	5.912E-03	1.261E-05	1.742E-04	1.611E-04	6.419E-06	1.239E-03	1.034E-04
16	1.250E-04	7.997E-03	1.431E-05	1.978E-04	1.829E-04	7.278E-06	1.398E-03	1.175E-04
17	6.577E-05	1.303E-03	7.296E-06	1.025E-04	9.490E-05	3.655E-06	6.056E-04	6.200E-05
18	9.925E-05	2.746E-03	1.111E-05	1.554E-04	1.438E-04	5.590E-06	9.682E-04	9.349E-05
19	9.857E-05	3.396E-03	1.118E-05	1.554E-04	1.437E-04	5.663E-06	1.045E-03	9.273E-05
20	1.383E-04	6.022E-03	1.564E-05	2.176E-04	2.012E-04	7.908E-06	1.437E-03	1.302E-04
21	1.010E-04	1.366E-02	1.167E-05	1.608E-04	1.486E-04	5.956E-06	1.183E-03	9.491E-05
22	9.420E-05	1.301E-02	1.101E-05	1.509E-04	1.393E-04	5.650E-06	1.175E-03	8.839E-05
23	9.390E-05	1.285E-02	1.101E-05	1.506E-04	1.391E-04	5.657E-06	1.190E-03	8.808E-05
24	9.328E-05	1.290E-02	1.091E-05	1.494E-04	1.380E-04	5.603E-06	1.170E-03	8.751E-05
25	9.398E-05	1.395E-02	1.094E-05	1.501E-04	1.387E-04	5.606E-06	1.150E-03	8.821E-05
26	9.945E-05	1.622E-02	1.128E-05	1.568E-04	1.450E-04	5.710E-06	1.052E-03	9.357E-05
27	1.018E-04	9.613E-03	1.142E-05	1.596E-04	1.477E-04	5.752E-06	1.008E-03	9.586E-05
28	1.087E-04	7.947E-03	1.216E-05	1.703E-04	1.576E-04	6.119E-06	1.057E-03	1.024E-04
29	1.380E-04	6.899E-03	1.552E-05	2.165E-04	2.003E-04	7.824E-06	1.387E-03	1.299E-04
30	1.462E-04	6.810E-03	1.649E-05	2.297E-04	2.125E-04	8.331E-06	1.500E-03	1.376E-04
31	1.529E-04	7.247E-03	1.732E-05	2.407E-04	2.226E-04	8.763E-06	1.603E-03	1.439E-04
32	1.534E-04	8.693E-03	1.745E-05	2.420E-04	2.238E-04	8.848E-06	1.651E-03	1.443E-04
33	1.699E-04	3.056E-02	1.941E-05	2.686E-04	2.483E-04	9.857E-06	1.872E-03	1.598E-04
34	1.876E-04	3.257E-02	2.148E-05	2.970E-04	2.745E-04	1.092E-05	2.096E-03	1.764E-04
35	1.999E-04	3.228E-02	2.291E-05	3.166E-04	2.926E-04	1.165E-05	2.242E-03	1.880E-04
36	2.087E-04	3.082E-02	2.383E-05	3.298E-04	3.049E-04	1.210E-05	2.292E-03	1.963E-04
37	2.095E-04	2.841E-02	2.383E-05	3.302E-04	3.054E-04	1.208E-05	2.257E-03	1.970E-04
38	2.033E-04	1.518E-02	2.302E-05	3.197E-04	2.957E-04	1.164E-05	2.123E-03	1.914E-04
39	2.481E-04	2.878E-02	2.818E-05	3.908E-04	3.614E-04	1.428E-05	2.648E-03	2.334E-04
40	3.142E-04	3.582E-02	3.582E-05	4.958E-04	4.585E-04	1.818E-05	3.420E-03	2.955E-04
41	4.285E-04	3.203E-02	4.961E-05	6.859E-04	6.339E-04	2.535E-05	5.089E-03	4.024E-04
42	6.540E-04	2.148E-02	7.665E-05	1.048E-03	9.678E-04	3.938E-05	8.269E-03	6.135E-04
43	5.551E-04	1.494E-02	6.386E-05	8.819E-04	8.152E-04	3.254E-05	6.368E-03	5.216E-04
44	5.088E-04	9.836E-03	5.534E-05	7.878E-04	7.299E-04	2.746E-05	4.081E-03	4.805E-04
45	4.927E-04	6.829E-03	5.229E-05	7.534E-04	6.987E-04	2.564E-05	3.245E-03	4.662E-04
46	3.111E-04	4.880E-03	3.336E-05	4.779E-04	4.430E-04	1.644E-05	2.237E-03	2.941E-04
47	4.572E-04	5.483E-03	4.983E-05	7.087E-04	6.565E-04	2.476E-05	3.727E-03	4.316E-04
48	5.978E-04	6.166E-03	6.298E-05	9.117E-04	8.458E-04	3.076E-05	3.679E-03	5.660E-04
49	7.073E-04	6.607E-03	7.449E-05	1.079E-03	1.001E-03	3.638E-05	4.338E-03	6.697E-04
50	7.583E-04	6.542E-03	8.017E-05	1.159E-03	1.075E-03	3.923E-05	4.822E-03	7.178E-04
51	3.987E-04	5.059E-03	4.325E-05	6.178E-04	5.725E-04	2.144E-05	3.137E-03	3.766E-04
52	2.649E-04	4.054E-03	2.893E-05	4.110E-04	3.807E-04	1.439E-05	2.191E-03	2.501E-04
53	1.924E-04	3.301E-03	2.105E-05	2.984E-04	2.764E-04	1.048E-05	1.615E-03	1.815E-04
54	1.553E-04	2.771E-03	1.791E-05	2.478E-04	2.290E-04	9.135E-06	1.805E-03	1.459E-04
55	1.673E-04	2.951E-03	1.878E-05	2.637E-04	2.440E-04	9.463E-06	1.665E-03	1.575E-04
56	1.817E-04	3.090E-03	2.047E-05	2.870E-04	2.656E-04	1.033E-05	1.842E-03	1.711E-04
57	1.918E-04	3.104E-03	2.105E-05	2.977E-04	2.757E-04	1.049E-05	1.645E-03	1.809E-04
58	2.403E-04	3.567E-03	2.647E-05	3.738E-04	3.462E-04	1.322E-05	2.115E-03	2.266E-04
59	2.987E-04	4.040E-03	3.437E-05	4.755E-04	4.396E-04	1.751E-05	3.429E-03	2.807E-04
60	3.577E-04	4.403E-03	4.121E-05	5.690E-04	5.259E-04	2.101E-05	4.135E-03	3.361E-04
61	4.324E-04	4.708E-03	4.959E-05	6.859E-04	6.340E-04	2.524E-05	4.877E-03	4.064E-04
62	5.102E-04	5.072E-03	5.851E-05	8.090E-04	7.479E-04	2.977E-05	5.747E-03	4.795E-04
63	5.869E-04	5.528E-03	6.787E-05	9.344E-04	8.635E-04	3.466E-05	6.920E-03	5.512E-04
64	5.398E-04	5.125E-03	6.246E-05	8.609E-04	7.956E-04	3.191E-05	6.386E-03	5.069E-04
65	6.364E-04	5.647E-03	7.265E-05	1.007E-03	9.307E-04	3.688E-05	6.984E-03	5.984E-04
66	7.912E-04	6.348E-03	8.881E-05	1.242E-03	1.149E-03	4.474E-05	7.857E-03	7.451E-04
67	1.078E-03	7.536E-03	1.179E-04	1.672E-03	1.549E-03	5.862E-05	8.959E-03	1.018E-03
68	1.153E-03	8.276E-03	1.251E-04	1.784E-03	1.653E-03	6.201E-05	9.076E-03	1.089E-03
69	1.154E-03	8.881E-03	1.257E-04	1.787E-03	1.655E-03	6.241E-05	9.350E-03	1.090E-03
70	1.127E-03	9.215E-03	1.230E-04	1.747E-03	1.618E-03	6.118E-05	9.304E-03	1.064E-03
71	7.305E-04	7.246E-03	8.102E-05	1.141E-03	1.056E-03	4.059E-05	6.719E-03	6.887E-04
72	5.326E-04	5.843E-03	6.003E-05	8.380E-04	7.752E-04	3.030E-05	5.423E-03	5.014E-04
73	4.042E-04	4.803E-03	4.477E-05	6.313E-04	5.844E-04	2.242E-05	3.688E-03	3.810E-04
74	3.359E-04	4.140E-03	3.867E-05	5.338E-04	4.934E-04	1.971E-05	3.865E-03	3.156E-04
75	3.096E-04	4.145E-03	3.466E-05	4.875E-04	4.512E-04	1.744E-05	3.028E-03	2.916E-04
76	2.787E-04	4.242E-03	3.059E-05	4.331E-04	4.011E-04	1.525E-05	2.392E-03	2.629E-04
77	2.406E-04	4.193E-03	2.640E-05	3.741E-04	3.464E-04	1.316E-05	2.057E-03	2.271E-04
78	2.062E-04	4.040E-03	2.339E-05	3.270E-04	3.024E-04	1.184E-05	2.183E-03	1.940E-04
79	2.372E-04	4.604E-03	2.747E-05	3.794E-04	3.506E-04	1.404E-05	2.819E-03	2.227E-04
80	2.631E-04	5.278E-03	2.878E-05	4.085E-04	3.784E-04	1.432E-05	2.200E-03	2.483E-04
81	3.079E-04	6.230E-03	3.339E-05	4.761E-04	4.411E-04	1.654E-05	2.413E-03	2.908E-04
82	3.617E-04	7.531E-03	3.884E-05	5.562E-04	5.156E-04	1.915E-05	2.626E-03	3.419E-04
83	3.981E-04	9.279E-03	4.265E-05	6.116E-04	5.669E-04	2.101E-05	2.838E-03	3.764E-04
84	4.318E-04	1.226E-02	4.620E-05	6.629E-04	6.146E-04	2.274E-05	3.044E-03	4.084E-04
85	4.596E-04	1.908E-02	4.913E-05	7.053E-04	6.539E-04	2.417E-05	3.210E-03	4.347E-04
86	4.458E-04	4.234E-02	4.782E-05	6.853E-04	6.353E-04	2.357E-05	3.210E-03	4.215E-04
87	2.351E-04	4.784E-02	2.590E-05	3.657E-04	3.386E-04	1.293E-05	2.066E-03	2.217E-04
88	1.566E-04	3.008E-02	1.755E-05	2.456E-04	2.272E-04	8.834E-06	1.539E-03	1.475E-04
89	1.140E-04	1.134E-02	1.293E-05	1.799E-04	1.663E-04	6.548E-06	1.207E-03	1.073E-04
90	1.070E-04	1.307E-02	1.224E-05	1.695E-04	1.567E-04	6.221E-06	1.189E-03	1.006E-04
91	5.129E-04	5.639E-03	5.563E-05	7.916E-04	7.335E-04	2.757E-05	4.029E-03	4.844E-04
92	4.967E-04	5.425E-03	5.396E-05	7.672E-04	7.108E-04	2.676E-05	3.947E-03	4.691E-04
93	4.779E-04	5.168E-03	5.205E-05	7.390E-04	6.846E-04	2.585E-05	3.874E-03	4.512E-04
94	4.581E-04	4.905E-03	5.016E-05	7.103E-04	6.579E-04	2.497E-05	3.856E-03	4.323E-04
95	4.389E-04	4.673E-03	4.823E-05	6.817E-04	6.313E-04	2.406E-05	3.790E-03	4.141E-04
96	4.215E-04	4.465E-03	4.640E-05	6.550E-04	6.065E-04	2.316E-05	3.685E-03	3.976E-04
97	4.050E-04	4.268E-03	4.489E-05	6.315E-04	5.846E-04	2.248E-05	3.709E-03	3.818E-04
98	3.811E-04	4.063E-03	4.216E-05	5.934E-04	5.493E-04	2.109E-05	3.443E-03	3.594E-04

99	3.611E-04	3.896E-03	4.046E-05	5.661E-04	5.238E-04	2.037E-05	3.549E-03	3.401E-04
100	3.382E-04	3.736E-03	3.801E-05	5.309E-04	4.912E-04	1.916E-05	3.386E-03	3.185E-04
101	3.194E-04	3.614E-03	3.649E-05	5.059E-04	4.678E-04	1.854E-05	3.526E-03	3.003E-04
102	3.036E-04	3.521E-03	3.565E-05	4.870E-04	4.498E-04	1.833E-05	3.877E-03	2.847E-04
103	5.859E-04	5.993E-03	6.349E-05	9.040E-04	8.376E-04	3.145E-05	4.569E-03	5.534E-04
104	5.626E-04	5.725E-03	6.113E-05	8.692E-04	8.053E-04	3.032E-05	4.482E-03	5.313E-04
105	5.350E-04	5.424E-03	5.835E-05	8.281E-04	7.671E-04	2.900E-05	4.380E-03	5.051E-04
106	5.079E-04	5.135E-03	5.578E-05	7.888E-04	7.305E-04	2.781E-05	4.368E-03	4.792E-04
107	4.834E-04	4.889E-03	5.327E-05	7.518E-04	6.962E-04	2.660E-05	4.257E-03	4.560E-04
108	4.596E-04	4.667E-03	5.085E-05	7.161E-04	6.630E-04	2.545E-05	4.161E-03	4.333E-04
109	4.349E-04	4.448E-03	4.846E-05	6.801E-04	6.294E-04	2.433E-05	4.123E-03	4.099E-04
110	4.072E-04	4.235E-03	4.577E-05	6.396E-04	5.918E-04	2.307E-05	4.078E-03	3.834E-04
111	3.798E-04	4.039E-03	4.287E-05	5.977E-04	5.529E-04	2.165E-05	3.901E-03	3.575E-04
112	3.550E-04	3.877E-03	4.040E-05	5.611E-04	5.189E-04	2.048E-05	3.828E-03	3.339E-04
113	3.319E-04	3.745E-03	3.808E-05	5.269E-04	4.871E-04	1.938E-05	3.747E-03	3.120E-04
114	3.142E-04	3.648E-03	3.684E-05	5.038E-04	4.653E-04	1.893E-05	3.983E-03	2.947E-04
115	6.836E-04	6.387E-03	7.401E-05	1.055E-03	9.773E-04	3.664E-05	5.294E-03	6.458E-04
116	6.482E-04	6.066E-03	7.047E-05	1.002E-03	9.285E-04	3.496E-05	5.181E-03	6.121E-04
117	6.058E-04	5.718E-03	6.621E-05	9.388E-04	8.696E-04	3.293E-05	5.034E-03	5.718E-04
118	5.678E-04	5.400E-03	6.259E-05	8.835E-04	8.181E-04	3.126E-05	5.012E-03	5.356E-04
119	5.361E-04	5.154E-03	5.985E-05	8.409E-04	7.782E-04	3.007E-05	5.148E-03	5.051E-04
120	4.986E-04	4.881E-03	5.569E-05	7.808E-04	7.226E-04	2.799E-05	4.799E-03	4.697E-04
121	4.633E-04	4.624E-03	5.194E-05	7.267E-04	6.724E-04	2.615E-05	4.569E-03	4.363E-04
122	4.307E-04	4.396E-03	4.890E-05	6.802E-04	6.291E-04	2.477E-05	4.583E-03	4.052E-04
123	3.999E-04	4.194E-03	4.565E-05	6.332E-04	5.855E-04	2.318E-05	4.390E-03	3.760E-04
124	3.774E-04	4.053E-03	4.416E-05	6.053E-04	5.591E-04	2.267E-05	4.735E-03	3.541E-04
125	3.512E-04	3.913E-03	4.097E-05	5.617E-04	5.189E-04	2.101E-05	4.337E-03	3.296E-04
126	3.263E-04	3.796E-03	3.812E-05	5.223E-04	4.825E-04	1.956E-05	4.058E-03	3.062E-04
127	8.217E-04	6.868E-03	8.883E-05	1.267E-03	1.175E-03	4.395E-05	6.293E-03	7.763E-04
128	7.668E-04	6.484E-03	8.331E-05	1.185E-03	1.098E-03	4.133E-05	6.107E-03	7.241E-04
129	6.969E-04	6.068E-03	7.648E-05	1.082E-03	1.002E-03	3.812E-05	5.968E-03	6.575E-04
130	6.459E-04	5.730E-03	7.283E-05	1.016E-03	9.398E-04	3.677E-05	6.593E-03	6.081E-04
131	5.914E-04	5.406E-03	6.725E-05	9.338E-04	8.635E-04	3.408E-05	6.348E-03	5.563E-04
132	5.405E-04	5.114E-03	6.190E-05	8.577E-04	7.930E-04	3.147E-05	6.042E-03	5.081E-04
133	4.911E-04	4.804E-03	5.563E-05	7.746E-04	7.165E-04	2.815E-05	5.153E-03	4.621E-04
134	4.581E-04	4.583E-03	5.296E-05	7.294E-04	6.741E-04	2.705E-05	5.397E-03	4.302E-04
135	4.258E-04	4.382E-03	4.946E-05	6.796E-04	6.279E-04	2.531E-05	5.141E-03	3.998E-04
136	3.973E-04	4.222E-03	4.606E-05	6.334E-04	5.853E-04	2.355E-05	4.746E-03	3.731E-04
137	3.681E-04	4.086E-03	4.277E-05	5.875E-04	5.429E-04	2.189E-05	4.455E-03	3.455E-04
138	3.416E-04	3.965E-03	3.979E-05	5.459E-04	5.043E-04	2.039E-05	4.187E-03	3.206E-04
139	1.047E-03	7.558E-03	1.139E-04	1.622E-03	1.503E-03	5.657E-05	8.454E-03	9.883E-04
140	9.627E-04	7.088E-03	1.057E-04	1.496E-03	1.385E-03	5.271E-05	8.275E-03	9.084E-04
141	8.263E-04	6.512E-03	9.203E-05	1.292E-03	1.196E-03	4.619E-05	7.809E-03	7.787E-04
142	7.137E-04	6.007E-03	8.058E-05	1.123E-03	1.039E-03	4.070E-05	7.342E-03	6.718E-04
143	6.353E-04	5.633E-03	7.238E-05	1.004E-03	9.283E-04	3.672E-05	6.896E-03	5.974E-04
144	5.729E-04	5.312E-03	6.583E-05	9.092E-04	8.405E-04	3.353E-05	6.528E-03	5.383E-04
145	5.229E-04	5.018E-03	6.030E-05	8.315E-04	7.685E-04	3.076E-05	6.073E-03	4.913E-04
146	4.836E-04	4.773E-03	5.595E-05	7.702E-04	7.117E-04	2.858E-05	5.719E-03	4.542E-04
147	4.486E-04	4.579E-03	5.190E-05	7.145E-04	6.603E-04	2.651E-05	5.300E-03	4.213E-04
148	4.163E-04	4.420E-03	4.816E-05	6.630E-04	6.127E-04	2.460E-05	4.919E-03	3.910E-04
149	3.872E-04	4.280E-03	4.482E-05	6.168E-04	5.700E-04	2.290E-05	4.591E-03	3.636E-04
150	3.587E-04	4.153E-03	4.154E-05	5.716E-04	5.282E-04	2.123E-05	4.263E-03	3.369E-04
151	5.521E-04	5.240E-03	6.387E-05	8.791E-04	8.124E-04	3.262E-05	6.523E-03	5.185E-04
152	5.127E-04	5.006E-03	5.911E-05	8.152E-04	7.534E-04	3.015E-05	5.948E-03	4.817E-04
153	4.774E-04	4.816E-03	5.493E-05	7.583E-04	7.009E-04	2.799E-05	5.479E-03	4.486E-04
154	4.371E-04	4.644E-03	5.063E-05	6.968E-04	6.439E-04	2.588E-05	5.200E-03	4.105E-04
155	4.140E-04	4.507E-03	4.764E-05	6.576E-04	6.078E-04	2.428E-05	4.755E-03	3.890E-04
156	3.791E-04	4.366E-03	4.374E-05	6.031E-04	5.574E-04	2.232E-05	4.416E-03	3.561E-04
157	2.872E-04	3.713E-03	3.336E-05	4.584E-04	4.235E-04	1.707E-05	3.465E-03	2.697E-04
158	2.945E-04	3.697E-03	3.389E-05	4.680E-04	4.326E-04	1.727E-05	3.384E-03	2.767E-04
159	2.869E-04	3.797E-03	3.148E-05	4.454E-04	4.125E-04	1.569E-05	2.448E-03	2.708E-04
160	2.792E-04	3.811E-03	3.042E-05	4.317E-04	3.999E-04	1.511E-05	2.270E-03	2.636E-04
161	2.653E-04	3.623E-03	2.890E-05	4.102E-04	3.800E-04	1.436E-05	2.155E-03	2.505E-04
162	2.525E-04	3.358E-03	2.757E-05	3.908E-04	3.620E-04	1.371E-05	2.086E-03	2.383E-04
163	2.426E-04	3.064E-03	2.659E-05	3.761E-04	3.484E-04	1.325E-05	2.057E-03	2.290E-04
164	2.260E-04	2.814E-03	2.493E-05	3.514E-04	3.254E-04	1.245E-05	2.002E-03	2.132E-04
165	2.036E-04	2.628E-03	2.267E-05	3.179E-04	2.943E-04	1.138E-05	1.921E-03	1.919E-04
166	1.797E-04	2.503E-03	2.016E-05	2.816E-04	2.606E-04	1.015E-05	1.775E-03	1.693E-04
167	1.607E-04	2.450E-03	1.803E-05	2.518E-04	2.330E-04	9.081E-06	1.591E-03	1.513E-04
168	3.593E-04	4.402E-03	3.934E-05	5.573E-04	5.162E-04	1.959E-05	3.028E-03	3.390E-04
169	3.595E-04	4.522E-03	3.917E-05	5.560E-04	5.151E-04	1.946E-05	2.922E-03	3.395E-04
170	3.439E-04	4.406E-03	3.739E-05	5.313E-04	4.922E-04	1.855E-05	2.753E-03	3.247E-04
171	3.228E-04	4.048E-03	3.521E-05	4.994E-04	4.626E-04	1.750E-05	2.642E-03	3.048E-04
172	3.035E-04	3.666E-03	3.326E-05	4.705E-04	4.358E-04	1.656E-05	2.567E-03	2.864E-04
173	2.834E-04	3.304E-03	3.126E-05	4.407E-04	4.080E-04	1.562E-05	2.513E-03	2.673E-04
174	2.526E-04	3.043E-03	2.824E-05	3.954E-04	3.659E-04	1.420E-05	2.446E-03	2.380E-04
175	2.200E-04	2.855E-03	2.496E-05	3.469E-04	3.208E-04	1.264E-05	2.334E-03	2.069E-04
176	1.904E-04	2.750E-03	2.149E-05	2.993E-04	2.769E-04	1.085E-05	1.954E-03	1.792E-04
177	1.688E-04	2.649E-03	1.901E-05	2.651E-04	2.453E-04	9.592E-06	1.710E-03	1.589E-04
178	4.824E-04	5.498E-03	5.399E-05	7.584E-04	7.018E-04	2.716E-05	4.703E-03	4.544E-04
179	4.668E-04	5.400E-03	5.072E-05	7.214E-04	6.684E-04	2.516E-05	3.717E-03	4.409E-04
180	4.374E-04	5.041E-03	4.755E-05	6.758E-04	6.261E-04	2.359E-05	3.495E-03	4.131E-04
181	4.000E-04	4.481E-03	4.381E-05	6.200E-04	5.743E-04	2.181E-05	3.375E-03	3.775E-04
182	3.692E-04	4.015E-03	4.112E-05	5.774E-04	5.344E-04	2.064E-05	3.486E-03	3.480E-04
183	3.233E-04	3.606E-03	3.612E-05	5.059E-04	4.682E-04	1.816E-05	3.116E-03	3.046E-04
184	2.836E-04	3.351E-03	3.324E-05	4.547E-04	4.200E-04	1.708E-05	3.587E-03	2.661E-04
185	2.379E-04	3.142E-03	2.767E-05	3.804E-04	3.515E-04	1.417E-05	2.895E-03	2.233E-04
186	2.032E-04	3.007E-03	2.319E-05	3.215E-04	2.973E-04	1.177E-05	2.226E-03	1.911E-04
187	1.790E-04	2.826E-03	2.011E-05	2.809E-04	2.599E-04	1.014E-05	1.789E-03	1.685E-04
188	6.778E-04	6.876E-03	7.546E-05	1.060E-03	9.814E-04	3.787E-05	6.391E-03	6.387E-04
189	6.499E-04	6.412E-03	7.033E-05	1.003E-03	9.291E-04	3.482E-05	5.020E-03	6.139E-04
190	5.860E-04	5.728E-03	6.383E-05	9.066E-04	8.398E-04	3.170E-05	4.754E-03	5.532E-04
191	5.089E-04	5.013E-03	5.638E-05	7.939E-04	7.350E-04	2.823E-05	4.645E-03	4.798E-04
192	4.336E-04	4.422E-03	4.868E-05	6.806E-04	6.297E-04	2.453E-05	4.311E-03	4.083E-04
193	3.645E-04	3.956E-03	4.184E-05	5.788E-04	5.351E-04	2.130E-05	4.128E-03	3.426E-04
194	3.093E-04	3.668E-03	3.619E-05	4.954E-04	4.576E-04	1.858E-05	3.875E-03	2.902E-04
195	2.564E-04	3.467E-03	2.968E-05	4.091E-04	3.780E-04	1.516E-05	3.039E-03	2.408E-04

196	2.224E-04	3.277E-03	2.565E-05	3.550E-04	3.281E-04	1.308E-05	2.585E-03	2.089E-04
197	1.884E-04	2.963E-03	2.108E-05	2.953E-04	2.733E-04	1.061E-05	1.835E-03	1.774E-04
198	1.101E-03	8.698E-03	1.201E-04	1.706E-03	1.580E-03	5.972E-05	9.057E-03	1.039E-03
199	1.078E-03	7.897E-03	1.161E-04	1.663E-03	1.541E-03	5.737E-05	8.057E-03	1.019E-03
200	8.938E-04	6.796E-03	9.872E-05	1.393E-03	1.289E-03	4.935E-05	7.991E-03	8.429E-04
201	5.032E-04	4.889E-03	5.828E-05	8.016E-04	7.408E-04	2.978E-05	5.982E-03	4.725E-04
202	3.457E-04	4.100E-03	4.006E-05	5.511E-04	5.092E-04	2.048E-05	4.122E-03	3.246E-04
203	2.848E-04	3.843E-03	3.319E-05	4.555E-04	4.208E-04	1.701E-05	3.501E-03	2.673E-04
204	2.330E-04	3.453E-03	2.601E-05	3.649E-04	3.377E-04	1.307E-05	2.238E-03	2.195E-04
205	1.895E-04	3.019E-03	2.099E-05	2.956E-04	2.736E-04	1.050E-05	1.723E-03	1.787E-04
206	1.829E-04	3.035E-03	2.015E-05	2.846E-04	2.635E-04	1.007E-05	1.611E-03	1.725E-04
207	1.716E-04	2.971E-03	1.979E-05	2.732E-04	2.525E-04	1.009E-05	1.992E-03	1.612E-04
208	1.719E-05	4.097E-04	1.985E-06	2.738E-05	2.531E-05	1.013E-06	2.011E-04	1.615E-05
209	1.975E-05	4.398E-04	2.265E-06	3.133E-05	2.897E-05	1.153E-06	2.228E-04	1.856E-05
210	2.323E-05	5.458E-04	2.656E-06	3.678E-05	3.401E-05	1.349E-06	2.570E-04	2.184E-05
211	2.744E-05	6.572E-04	3.118E-06	4.333E-05	4.007E-05	1.580E-06	2.937E-04	2.581E-05
212	3.297E-05	8.199E-04	3.722E-06	5.188E-05	4.799E-05	1.880E-06	3.386E-04	3.104E-05
213	4.125E-05	1.051E-03	4.632E-06	6.473E-05	5.989E-05	2.334E-06	4.105E-04	3.885E-05
214	5.269E-05	1.284E-03	5.875E-06	8.238E-05	7.624E-05	2.950E-06	5.016E-04	4.965E-05
215	6.792E-05	1.432E-03	7.535E-06	1.059E-04	9.805E-05	3.775E-06	6.254E-04	6.403E-05
216	8.101E-05	1.644E-03	8.984E-06	1.263E-04	1.169E-04	4.501E-06	7.448E-04	7.637E-05
217	9.346E-05	1.686E-03	1.032E-05	1.454E-04	1.346E-04	5.158E-06	8.333E-04	8.815E-05
218	1.001E-04	1.735E-03	1.103E-05	1.556E-04	1.440E-04	5.506E-06	8.794E-04	9.442E-05
219	1.034E-04	1.690E-03	1.138E-05	1.606E-04	1.487E-04	5.684E-06	9.065E-04	9.750E-05
220	9.688E-05	1.553E-03	1.070E-05	1.507E-04	1.395E-04	5.353E-06	8.687E-04	9.136E-05
221	8.904E-05	1.497E-03	9.818E-06	1.384E-04	1.281E-04	4.905E-06	7.873E-04	8.398E-05
222	8.263E-05	1.434E-03	9.049E-06	1.281E-04	1.186E-04	4.506E-06	6.969E-04	7.798E-05
223	8.216E-05	1.347E-03	9.008E-06	1.274E-04	1.180E-04	4.488E-06	6.983E-04	7.753E-05
224	8.189E-05	1.319E-03	9.051E-06	1.275E-04	1.180E-04	4.527E-06	7.355E-04	7.723E-05
225	7.994E-05	1.322E-03	8.936E-06	1.251E-04	1.157E-04	4.494E-06	7.738E-04	7.530E-05
226	7.567E-05	1.280E-03	8.499E-06	1.187E-04	1.098E-04	4.283E-06	7.542E-04	7.126E-05
227	1.686E-05	4.098E-04	1.971E-06	2.699E-05	2.493E-05	1.012E-06	2.107E-04	1.581E-05
228	1.994E-05	4.805E-04	2.309E-06	3.181E-05	2.940E-05	1.180E-06	2.369E-04	1.873E-05
229	2.352E-05	5.342E-04	2.701E-06	3.734E-05	3.452E-05	1.375E-06	2.668E-04	2.211E-05
230	2.816E-05	6.880E-04	3.214E-06	4.456E-05	4.120E-05	1.632E-06	3.086E-04	2.648E-05
231	3.415E-05	8.336E-04	3.869E-06	5.384E-05	4.980E-05	1.958E-06	3.588E-04	3.213E-05
232	4.260E-05	1.114E-03	4.786E-06	6.687E-05	6.187E-05	2.412E-06	4.254E-04	4.011E-05
233	5.562E-05	1.397E-03	6.207E-06	8.700E-05	8.052E-05	3.118E-06	5.322E-04	5.240E-05
234	7.379E-05	1.661E-03	8.186E-06	1.151E-04	1.065E-04	4.101E-06	6.795E-04	6.956E-05
235	9.306E-05	1.918E-03	1.030E-05	1.450E-04	1.342E-04	5.156E-06	8.450E-04	8.774E-05
236	1.110E-04	1.994E-03	1.225E-05	1.726E-04	1.598E-04	6.120E-06	9.864E-04	1.047E-04
237	1.218E-04	2.018E-03	1.340E-05	1.892E-04	1.752E-04	6.689E-06	1.061E-03	1.149E-04
238	1.240E-04	1.957E-03	1.365E-05	1.925E-04	1.783E-04	6.813E-06	1.085E-03	1.169E-04
239	1.151E-04	1.794E-03	1.270E-05	1.790E-04	1.657E-04	6.350E-06	1.025E-03	1.085E-04
240	1.060E-04	1.801E-03	1.164E-05	1.644E-04	1.523E-04	5.801E-06	9.088E-04	1.000E-04
241	1.021E-04	1.659E-03	1.116E-05	1.581E-04	1.464E-04	5.552E-06	8.500E-04	9.635E-05
242	1.014E-04	1.580E-03	1.116E-05	1.575E-04	1.459E-04	5.568E-06	8.819E-04	9.571E-05
243	9.720E-05	1.527E-03	1.082E-05	1.518E-04	1.405E-04	5.432E-06	9.169E-04	9.160E-05
244	9.056E-05	1.484E-03	1.017E-05	1.420E-04	1.314E-04	5.126E-06	9.027E-04	8.528E-05
245	8.091E-05	1.390E-03	9.091E-06	1.269E-04	1.174E-04	4.582E-06	8.085E-04	7.619E-05
246	1.554E-05	3.834E-04	1.820E-06	2.493E-05	2.302E-05	9.350E-07	1.959E-04	1.458E-05
247	1.912E-05	4.811E-04	2.243E-06	3.067E-05	2.833E-05	1.153E-06	2.431E-04	1.794E-05
248	2.331E-05	5.763E-04	2.703E-06	3.721E-05	3.439E-05	1.382E-06	2.789E-04	2.189E-05
249	2.855E-05	6.773E-04	3.271E-06	4.527E-05	4.186E-05	1.664E-06	3.201E-04	2.684E-05
250	3.523E-05	8.789E-04	4.012E-06	5.569E-05	5.150E-05	2.034E-06	3.810E-04	3.314E-05
251	4.446E-05	1.148E-03	5.014E-06	6.992E-05	6.469E-05	2.531E-06	4.543E-04	4.185E-05
252	5.842E-05	1.555E-03	6.526E-06	9.144E-05	8.463E-05	3.280E-06	5.627E-04	5.504E-05
253	8.072E-05	1.945E-03	8.950E-06	1.259E-04	1.165E-04	4.483E-06	7.409E-04	7.609E-05
254	1.080E-04	2.272E-03	1.193E-05	1.681E-04	1.556E-04	5.964E-06	9.648E-04	1.019E-04
255	1.350E-04	2.413E-03	1.488E-05	2.098E-04	1.943E-04	7.431E-06	1.189E-03	1.273E-04
256	1.524E-04	2.394E-03	1.674E-05	2.365E-04	2.190E-04	8.351E-06	1.317E-03	1.437E-04
257	1.526E-04	2.276E-03	1.679E-05	2.370E-04	2.194E-04	8.383E-06	1.333E-03	1.439E-04
258	1.432E-04	2.218E-03	1.575E-05	2.223E-04	2.059E-04	7.863E-06	1.249E-03	1.350E-04
259	1.337E-04	2.156E-03	1.461E-05	2.070E-04	1.917E-04	7.269E-06	1.112E-03	1.262E-04
260	1.310E-04	1.961E-03	1.433E-05	2.029E-04	1.879E-04	7.132E-06	1.098E-03	1.236E-04
261	1.231E-04	1.828E-03	1.362E-05	1.917E-04	1.774E-04	6.819E-06	1.118E-03	1.160E-04
262	1.114E-04	1.743E-03	1.250E-05	1.745E-04	1.615E-04	6.294E-06	1.102E-03	1.049E-04
263	9.867E-05	1.643E-03	1.108E-05	1.547E-04	1.432E-04	5.584E-06	9.825E-04	9.292E-05
264	8.345E-05	1.487E-03	9.341E-06	1.307E-04	1.209E-04	4.700E-06	8.144E-04	7.861E-05
265	1.560E-05	4.130E-04	1.845E-06	2.517E-05	2.324E-05	9.517E-07	2.064E-04	1.462E-05
266	1.816E-05	4.664E-04	2.127E-06	2.914E-05	2.692E-05	1.093E-06	2.292E-04	1.703E-05
267	2.225E-05	5.823E-04	2.606E-06	3.567E-05	3.294E-05	1.338E-06	2.804E-04	2.087E-05
268	2.778E-05	7.130E-04	3.222E-06	4.436E-05	4.099E-05	1.648E-06	3.330E-04	2.608E-05
269	3.557E-05	9.025E-04	4.070E-06	5.637E-05	5.211E-05	2.069E-06	3.958E-04	3.344E-05
270	4.595E-05	1.186E-03	5.197E-06	7.240E-05	6.697E-05	2.628E-06	4.780E-04	4.324E-05
271	6.196E-05	1.721E-03	6.941E-06	9.713E-05	8.988E-05	3.493E-06	6.072E-04	5.836E-05
272	8.767E-05	2.294E-03	9.717E-06	1.367E-04	1.266E-04	4.866E-06	8.024E-04	8.265E-05
273	1.278E-04	2.743E-03	1.410E-05	1.989E-04	1.841E-04	7.042E-06	1.131E-03	1.206E-04
274	1.720E-04	3.015E-03	1.932E-05	2.704E-04	2.502E-04	9.739E-06	1.718E-03	1.620E-04
275	1.992E-04	2.920E-03	2.198E-05	3.102E-04	2.872E-04	1.098E-05	1.766E-03	1.879E-04
276	1.986E-04	2.799E-03	2.182E-05	3.082E-04	2.854E-04	1.089E-05	1.716E-03	1.874E-04
277	1.880E-04	2.831E-03	2.056E-05	2.911E-04	2.697E-04	1.023E-05	1.570E-03	1.774E-04
278	1.769E-04	2.584E-03	1.931E-05	2.738E-04	2.536E-04	9.600E-06	1.457E-03	1.670E-04
279	1.666E-04	2.295E-03	1.833E-05	2.588E-04	2.396E-04	9.150E-06	1.452E-03	1.572E-04
280	1.444E-04	2.080E-03	1.614E-05	2.259E-04	2.091E-04	8.118E-06	1.397E-03	1.361E-04
281	1.232E-04	1.980E-03	1.383E-05	1.931E-04	1.787E-04	6.966E-06	1.222E-03	1.160E-04
282	1.027E-04	1.800E-03	1.147E-05	1.606E-04	1.486E-04	5.768E-06	9.920E-04	9.671E-05
283	8.188E-05	1.553E-03	9.130E-06	1.280E-04	1.185E-04	4.586E-06	7.799E-04	7.715E-05
284	1.594E-05	3.699E-04	1.888E-06	2.570E-05	2.373E-05	9.747E-07	2.128E-04	1.493E-05
285	1.858E-05	4.815E-04	2.204E-06	3.000E-05	2.770E-05	1.138E-06	2.492E-04	1.741E-05
286	2.207E-05	5.795E-04	2.583E-06	3.542E-05	3.272E-05	1.326E-06	2.772E-04	2.071E-05
287	2.735E-05	7.363E-04	3.177E-06	4.367E-05	4.035E-05	1.625E-06	3.300E-04	2.568E-05
288	3.469E-05	9.273E-04	4.002E-06	5.525E-05	5.106E-05	2.042E-06	4.036E-04	3.259E-05
289	4.623E-05	1.272E-03	5.267E-06	7.309E-05	6.759E-05	2.672E-06	5.016E-04	4.348E-05
290	6.439E-05	1.833E-03	7.240E-06	1.011E-04	9.357E-05	3.651E-06	6.465E-04	6.062E-05
291	9.615E-05	2.768E-03	1.065E-05	1.499E-04	1.388E-04	5.334E-06	8.780E-04	9.065E-05
292	1.644E-04	3.438E-03	1.925E-05	2.635E-04	2.434E-04	9.887E-06	2.069E-03	1.543E-04

293	2.264E-04	3.858E-03	2.480E-05	3.511E-04	3.252E-04	1.235E-05	1.912E-03	2.137E-04
294	1.308E-04	2.219E-03	1.459E-05	2.044E-04	1.892E-04	7.331E-06	1.251E-03	1.232E-04
295	1.007E-04	1.863E-03	1.120E-05	1.572E-04	1.455E-04	5.619E-06	9.430E-04	9.492E-05
296	7.530E-05	1.450E-03	8.375E-06	1.175E-04	1.088E-04	4.201E-06	7.053E-04	7.097E-05
297	1.443E-05	3.307E-04	1.722E-06	2.335E-05	2.155E-05	8.915E-07	1.992E-04	1.351E-05
298	1.746E-05	4.120E-04	2.086E-06	2.827E-05	2.609E-05	1.081E-06	2.423E-04	1.635E-05
299	2.131E-05	5.579E-04	2.548E-06	3.453E-05	3.187E-05	1.320E-06	2.971E-04	1.995E-05
300	2.603E-05	7.272E-04	3.064E-06	4.188E-05	3.867E-05	1.577E-06	3.368E-04	2.441E-05
301	3.360E-05	9.829E-04	3.894E-06	5.359E-05	4.952E-05	1.991E-06	4.007E-04	3.155E-05
302	4.573E-05	1.316E-03	5.223E-06	7.243E-05	6.697E-05	2.653E-06	5.038E-04	4.300E-05
303	6.604E-05	1.991E-03	7.442E-06	1.038E-04	9.606E-05	3.757E-06	6.721E-04	6.217E-05
304	1.037E-04	3.348E-03	1.152E-05	1.619E-04	1.499E-04	5.777E-06	9.649E-04	9.774E-05
305	1.885E-04	4.486E-03	2.070E-05	2.931E-04	2.714E-04	1.032E-05	1.622E-03	1.778E-04
306	1.315E-04	2.302E-03	1.453E-05	2.047E-04	1.895E-04	7.268E-06	1.181E-03	1.240E-04
307	9.397E-05	1.735E-03	1.039E-05	1.463E-04	1.354E-04	5.195E-06	8.447E-04	8.861E-05
308	6.961E-05	1.335E-03	7.690E-06	1.083E-04	1.003E-04	3.845E-06	6.237E-04	6.565E-05
309	1.179E-05	3.540E-04	1.455E-06	1.945E-05	1.793E-05	7.639E-07	1.891E-04	1.101E-05
310	1.465E-05	4.071E-04	1.773E-06	2.390E-05	2.205E-05	9.238E-07	2.163E-04	1.370E-05
311	1.851E-05	5.019E-04	2.216E-06	3.001E-05	2.770E-05	1.149E-06	2.597E-04	1.733E-05
312	2.369E-05	6.770E-04	2.812E-06	3.823E-05	3.529E-05	1.453E-06	3.192E-04	2.219E-05
313	3.068E-05	9.415E-04	3.610E-06	4.931E-05	4.554E-05	1.858E-06	3.958E-04	2.877E-05
314	4.233E-05	1.408E-03	4.901E-06	6.747E-05	6.235E-05	2.504E-06	5.022E-04	3.976E-05
315	6.246E-05	2.171E-03	7.123E-06	9.879E-05	9.135E-05	3.615E-06	6.819E-04	5.874E-05
316	1.037E-04	4.153E-03	1.160E-05	1.624E-04	1.503E-04	5.835E-06	1.008E-03	9.771E-05
317	2.248E-04	6.857E-03	2.450E-05	3.479E-04	3.223E-04	1.218E-05	1.834E-03	2.122E-04
318	1.203E-04	2.193E-03	1.327E-05	1.871E-04	1.733E-04	6.631E-06	1.068E-03	1.134E-04
319	8.211E-05	1.647E-03	9.079E-06	1.278E-04	1.184E-04	4.542E-06	7.400E-04	7.743E-05
320	6.136E-05	1.310E-03	6.790E-06	9.555E-05	8.846E-05	3.397E-06	5.553E-04	5.786E-05
321	1.017E-05	3.391E-04	1.277E-06	1.691E-05	1.558E-05	6.750E-07	1.752E-04	9.475E-06
322	1.220E-05	4.175E-04	1.544E-06	2.041E-05	1.879E-05	8.192E-07	2.170E-04	1.136E-05
323	1.468E-05	4.963E-04	1.818E-06	2.429E-05	2.239E-05	9.561E-07	2.392E-04	1.370E-05
324	1.858E-05	6.042E-04	2.243E-06	3.029E-05	2.794E-05	1.167E-06	2.709E-04	1.738E-05
325	2.515E-05	8.368E-04	2.989E-06	4.063E-05	3.751E-05	1.545E-06	3.408E-04	2.356E-05
326	3.548E-05	1.344E-03	4.186E-06	5.708E-05	5.271E-05	2.157E-06	4.636E-04	3.327E-05
327	5.308E-05	2.329E-03	6.137E-06	8.450E-05	7.809E-05	3.134E-06	6.254E-04	4.985E-05
328	9.197E-05	5.200E-03	1.046E-05	1.452E-04	1.343E-04	5.301E-06	9.874E-04	8.651E-05
329	2.258E-04	1.511E-02	2.480E-05	3.507E-04	3.248E-04	1.237E-05	1.943E-03	2.130E-04
330	1.032E-04	2.034E-03	1.135E-05	1.603E-04	1.484E-04	5.663E-06	8.968E-04	9.735E-05
331	7.513E-05	1.488E-03	8.296E-06	1.169E-04	1.082E-04	4.147E-06	6.710E-04	7.085E-05
332	5.938E-05	1.111E-03	6.572E-06	9.246E-05	8.560E-05	3.289E-06	5.385E-04	5.599E-05
333	9.413E-06	2.304E-04	1.120E-06	1.529E-05	1.412E-05	5.789E-07	1.281E-04	8.818E-06
334	1.091E-05	3.055E-04	1.300E-06	1.764E-05	1.628E-05	6.726E-07	1.497E-04	1.022E-05
335	1.296E-05	4.211E-04	1.553E-06	2.102E-05	1.940E-05	8.055E-07	1.826E-04	1.213E-05
336	1.594E-05	5.794E-04	1.924E-06	2.597E-05	2.396E-05	1.001E-06	2.321E-04	1.492E-05
337	2.041E-05	7.930E-04	2.486E-06	3.343E-05	3.083E-05	1.298E-06	3.095E-04	1.908E-05
338	2.731E-05	1.127E-03	3.294E-06	4.449E-05	4.105E-05	1.713E-06	3.965E-04	2.555E-05
339	4.209E-05	1.960E-03	4.995E-06	6.793E-05	6.271E-05	2.580E-06	5.662E-04	3.944E-05
340	7.534E-05	5.280E-03	8.737E-06	1.202E-04	1.110E-04	4.468E-06	9.018E-04	7.074E-05
341	2.793E-04	4.238E-03	3.038E-05	4.325E-04	4.007E-04	1.508E-05	2.242E-03	2.638E-04
342	1.359E-04	2.515E-03	1.493E-05	2.110E-04	1.954E-04	7.444E-06	1.170E-03	1.283E-04
343	9.176E-05	1.688E-03	1.013E-05	1.427E-04	1.321E-04	5.061E-06	8.161E-04	8.654E-05
344	6.852E-05	1.266E-03	7.580E-06	1.067E-04	9.875E-05	3.793E-06	6.196E-04	6.461E-05
345	5.335E-05	1.043E-03	5.913E-06	8.312E-05	7.695E-05	2.961E-06	4.882E-04	5.030E-05
346	8.545E-06	2.017E-04	1.087E-06	1.432E-05	1.318E-05	5.778E-07	1.550E-04	7.953E-06
347	9.582E-06	2.350E-04	1.176E-06	1.582E-05	1.458E-05	6.164E-07	1.506E-04	8.949E-06
348	1.121E-05	2.833E-04	1.352E-06	1.827E-05	1.685E-05	7.030E-07	1.627E-04	1.048E-05
349	1.350E-05	3.636E-04	1.601E-06	2.181E-05	2.014E-05	8.263E-07	1.807E-04	1.265E-05
350	1.700E-05	5.220E-04	1.993E-06	2.729E-05	2.521E-05	1.024E-06	2.154E-04	1.594E-05
351	2.266E-05	8.521E-04	2.645E-06	3.628E-05	3.352E-05	1.356E-06	2.804E-04	2.127E-05
352	3.369E-05	1.501E-03	3.938E-06	5.394E-05	4.983E-05	2.021E-06	4.203E-04	3.161E-05
353	5.630E-05	3.544E-03	6.637E-06	9.050E-05	8.357E-05	3.419E-06	7.335E-04	5.278E-05
354	1.946E-04	3.317E-03	2.107E-05	3.001E-04	2.781E-04	1.043E-05	1.506E-03	1.838E-04
355	1.086E-04	2.182E-03	1.190E-05	1.683E-04	1.559E-04	5.930E-06	9.228E-04	1.025E-04
356	7.454E-05	1.669E-03	8.224E-06	1.159E-04	1.073E-04	4.110E-06	6.619E-04	7.031E-05
357	5.655E-05	1.328E-03	6.258E-06	8.804E-05	8.151E-05	3.132E-06	5.123E-04	5.332E-05
358	4.578E-05	1.073E-03	5.069E-06	7.129E-05	6.600E-05	2.537E-06	4.164E-04	4.316E-05
359	7.543E-06	2.045E-04	9.610E-07	1.261E-05	1.161E-05	5.110E-07	1.375E-04	7.019E-06
360	8.746E-06	2.415E-04	1.106E-06	1.463E-05	1.347E-05	5.864E-07	1.550E-04	8.145E-06
361	9.970E-06	2.955E-04	1.198E-06	1.623E-05	1.498E-05	6.219E-07	1.422E-04	9.331E-06
362	1.204E-05	3.734E-04	1.418E-06	1.941E-05	1.792E-05	7.305E-07	1.566E-04	1.128E-05
363	1.500E-05	4.929E-04	1.744E-06	2.402E-05	2.219E-05	8.928E-07	1.820E-04	1.408E-05
364	1.949E-05	6.814E-04	2.234E-06	3.095E-05	2.861E-05	1.137E-06	2.191E-04	1.832E-05
365	2.633E-05	1.035E-03	3.005E-06	4.166E-05	3.852E-05	1.525E-06	2.886E-04	2.476E-05
366	4.135E-05	2.137E-03	4.698E-06	6.524E-05	6.034E-05	2.380E-06	4.417E-04	3.890E-05
367	9.251E-05	8.432E-03	1.042E-05	1.454E-04	1.345E-04	5.261E-06	9.406E-04	8.709E-05
368	3.145E-04	1.623E-02	3.557E-05	4.947E-04	4.576E-04	1.798E-05	3.269E-03	2.960E-04
369	2.440E-04	5.093E-03	2.662E-05	3.775E-04	3.497E-04	1.323E-05	2.002E-03	2.303E-04
370	1.431E-04	2.900E-03	1.562E-05	2.215E-04	2.052E-04	7.766E-06	1.179E-03	1.351E-04
371	9.074E-05	1.917E-03	9.950E-06	1.407E-04	1.303E-04	4.958E-06	7.722E-04	8.562E-05
372	6.361E-05	1.394E-03	7.007E-06	9.884E-05	9.152E-05	3.499E-06	5.587E-04	6.000E-05
373	4.805E-05	1.091E-03	5.308E-06	7.476E-05	6.921E-05	2.654E-06	4.304E-04	4.531E-05
374	3.882E-05	8.993E-04	4.300E-06	6.047E-05	5.598E-05	2.152E-06	3.535E-04	3.660E-05
375	7.233E-06	1.720E-04	9.095E-07	1.200E-05	1.106E-05	4.812E-07	1.253E-04	6.740E-06
376	8.409E-06	2.050E-04	1.052E-06	1.393E-05	1.283E-05	5.558E-07	1.430E-04	7.839E-06
377	9.913E-06	2.541E-04	1.225E-06	1.640E-05	1.511E-05	6.439E-07	1.603E-04	9.253E-06
378	1.152E-05	3.244E-04	1.341E-06	1.846E-05	1.705E-05	6.871E-07	1.409E-04	1.081E-05
379	1.447E-05	4.105E-04	1.666E-06	2.303E-05	2.128E-05	8.492E-07	1.665E-04	1.360E-05
380	1.846E-05	5.270E-04	2.126E-06	2.933E-05	2.711E-05	1.084E-06	2.132E-04	1.734E-05
381	2.476E-05	7.710E-04	2.849E-06	3.934E-05	3.637E-05	1.452E-06	2.841E-04	2.326E-05
382	3.582E-05	1.560E-03	4.068E-06	5.653E-05	5.228E-05	2.061E-06	3.819E-04	3.369E-05
383	6.974E-05	3.673E-03	7.848E-06	1.095E-04	1.013E-04	3.959E-06	7.035E-04	6.566E-05
384	1.400E-04	9.437E-03	1.599E-05	2.212E-04	2.046E-04	8.124E-06	1.545E-03	1.316E-04
385	1.767E-04	1.918E-02	2.027E-05	2.798E-04	2.587E-04	1.031E-05	1.992E-03	1.661E-04
386	1.948E-04	1.983E-02	2.220E-05	3.075E-04	2.843E-04	1.126E-05	2.115E-03	1.832E-04
387	1.846E-04	8.122E-03	2.074E-05	2.893E-04	2.677E-04	1.046E-05	1.846E-03	1.738E-04
388	1.531E-04	3.423E-03	1.695E-05	2.384E-04	2.207E-04	8.487E-06	1.393E-03	1.443E-04
389	1.131E-04	2.107E-03	1.247E-05	1.758E-04	1.628E-04	6.225E-06	9.954E-04	1.067E-04

390	8.006E-05	1.492E-03	8.823E-06	1.244E-04	1.152E-04	4.406E-06	7.051E-04	7.552E-05
391	5.938E-05	1.125E-03	6.541E-06	9.226E-05	8.543E-05	3.266E-06	5.214E-04	5.601E-05
392	4.540E-05	9.056E-04	5.007E-06	7.058E-05	6.535E-05	2.502E-06	4.022E-04	4.282E-05
393	3.657E-05	7.613E-04	4.046E-06	5.693E-05	5.271E-05	2.025E-06	3.308E-04	3.448E-05
394	7.250E-06	1.781E-04	8.947E-07	1.193E-05	1.099E-05	4.697E-07	1.163E-04	6.768E-06
395	8.729E-06	2.074E-04	1.069E-06	1.430E-05	1.319E-05	5.596E-07	1.356E-04	8.154E-06
396	1.058E-05	2.347E-04	1.308E-06	1.745E-05	1.608E-05	6.871E-07	1.709E-04	9.879E-06
397	1.223E-05	2.734E-04	1.468E-06	1.989E-05	1.835E-05	7.620E-07	1.737E-04	1.145E-05
398	1.399E-05	3.349E-04	1.653E-06	2.257E-05	2.084E-05	8.520E-07	1.840E-04	1.312E-05
399	1.651E-05	4.552E-04	1.924E-06	2.644E-05	2.443E-05	9.860E-07	2.028E-04	1.550E-05
400	2.114E-05	7.840E-04	2.415E-06	3.350E-05	3.098E-05	1.226E-06	2.328E-04	1.988E-05
401	3.143E-05	1.334E-03	3.545E-06	4.944E-05	4.573E-05	1.790E-06	3.213E-04	2.958E-05
402	5.604E-05	2.346E-03	6.326E-06	8.815E-05	8.154E-05	3.196E-06	5.760E-04	5.275E-05
403	9.098E-05	4.091E-03	1.039E-05	1.438E-04	1.330E-04	5.278E-06	1.002E-03	8.554E-05
404	1.184E-04	6.350E-03	1.353E-05	1.872E-04	1.731E-04	6.874E-06	1.308E-03	1.113E-04
405	1.314E-04	6.838E-03	1.506E-05	2.080E-04	1.923E-04	7.660E-06	1.474E-03	1.235E-04
406	1.278E-04	4.912E-03	1.439E-05	2.006E-04	1.856E-04	7.260E-06	1.292E-03	1.203E-04
407	1.113E-04	2.937E-03	1.241E-05	1.739E-04	1.609E-04	6.237E-06	1.064E-03	1.048E-04
408	8.923E-05	1.883E-03	9.878E-06	1.390E-04	1.286E-04	4.944E-06	8.106E-04	8.413E-05
409	6.977E-05	1.317E-03	7.731E-06	1.087E-04	1.006E-04	3.871E-06	6.375E-04	6.578E-05
410	5.538E-05	1.036E-03	6.133E-06	8.626E-05	7.986E-05	3.070E-06	5.045E-04	5.221E-05
411	4.433E-05	8.580E-04	4.899E-06	6.898E-05	6.387E-05	2.450E-06	3.976E-04	4.181E-05
412	3.534E-05	7.103E-04	3.908E-06	5.500E-05	5.092E-05	1.955E-06	3.184E-04	3.332E-05
413	1.219E-05	3.371E-04	1.460E-06	1.984E-05	1.831E-05	7.574E-07	1.717E-04	1.141E-05
414	1.062E-05	3.233E-04	1.256E-06	1.716E-05	1.584E-05	6.479E-07	1.405E-04	9.956E-06
415	9.922E-06	3.230E-04	1.167E-06	1.600E-05	1.478E-05	6.003E-07	1.277E-04	9.305E-06
416	1.443E-05	4.880E-04	1.669E-06	2.304E-05	2.130E-05	8.523E-07	1.702E-04	1.355E-05
417	1.323E-05	4.510E-04	1.522E-06	2.109E-05	1.949E-05	7.760E-07	1.522E-04	1.243E-05
418	1.372E-05	3.655E-04	1.582E-06	2.184E-05	2.018E-05	8.073E-07	1.596E-04	1.289E-05
419	1.881E-05	6.789E-04	2.132E-06	2.971E-05	2.748E-05	1.079E-06	1.984E-04	1.769E-05
420	1.931E-05	5.478E-04	2.212E-06	3.062E-05	2.831E-05	1.125E-06	2.159E-04	1.815E-05
421	1.821E-05	5.135E-04	2.125E-06	2.917E-05	2.694E-05	1.090E-06	2.257E-04	1.708E-05
422	2.907E-05	1.050E-03	3.305E-06	4.590E-05	4.245E-05	1.675E-06	3.114E-04	2.735E-05
423	2.672E-05	9.177E-04	3.055E-06	4.237E-05	3.918E-05	1.552E-06	2.959E-04	2.512E-05
424	2.509E-05	8.023E-04	2.886E-06	3.989E-05	3.687E-05	1.470E-06	2.873E-04	2.358E-05
425	4.696E-05	1.713E-03	5.331E-06	7.408E-05	6.851E-05	2.700E-06	4.994E-04	4.418E-05
426	4.098E-05	1.369E-03	4.675E-06	6.480E-05	5.992E-05	2.373E-06	4.485E-04	3.853E-05
427	3.680E-05	1.176E-03	4.212E-06	5.830E-05	5.390E-05	2.141E-06	4.096E-04	3.460E-05
428	6.971E-05	2.623E-03	7.956E-06	1.102E-04	1.019E-04	4.039E-06	7.638E-04	6.556E-05
429	5.716E-05	1.924E-03	6.521E-06	9.038E-05	8.357E-05	3.310E-06	6.252E-04	5.375E-05
430	4.818E-05	1.471E-03	5.504E-06	7.625E-05	7.050E-05	2.796E-06	5.312E-04	4.530E-05
431	8.707E-05	3.695E-03	9.935E-06	1.376E-04	1.272E-04	5.044E-06	9.534E-04	8.188E-05
432	6.727E-05	2.475E-03	7.685E-06	1.064E-04	9.836E-05	3.904E-06	7.418E-04	6.325E-05
433	5.451E-05	1.815E-03	6.230E-06	8.623E-05	7.972E-05	3.165E-06	6.026E-04	5.125E-05
434	9.534E-05	3.865E-03	1.090E-05	1.507E-04	1.393E-04	5.535E-06	1.053E-03	8.965E-05
435	7.347E-05	2.632E-03	8.351E-06	1.158E-04	1.071E-04	4.232E-06	7.866E-04	6.911E-05
436	5.870E-05	1.956E-03	6.652E-06	9.245E-05	8.550E-05	3.366E-06	6.174E-04	5.523E-05
437	9.571E-05	3.199E-03	1.086E-05	1.509E-04	1.396E-04	5.501E-06	1.016E-03	9.004E-05
438	7.425E-05	2.248E-03	8.439E-06	1.171E-04	1.083E-04	4.276E-06	7.941E-04	6.985E-05
439	5.951E-05	1.719E-03	6.737E-06	9.369E-05	8.665E-05	3.408E-06	6.221E-04	5.600E-05
440	8.612E-05	2.341E-03	9.684E-06	1.351E-04	1.250E-04	4.883E-06	8.644E-04	8.109E-05
441	6.980E-05	1.858E-03	7.929E-06	1.101E-04	1.018E-04	4.017E-06	7.448E-04	6.566E-05
442	5.773E-05	1.500E-03	6.565E-06	9.109E-05	8.424E-05	3.328E-06	6.201E-04	5.430E-05
443	7.280E-05	1.754E-03	8.220E-06	1.147E-04	1.061E-04	4.153E-06	7.495E-04	6.853E-05
444	6.140E-05	1.488E-03	7.040E-06	9.747E-05	9.011E-05	3.581E-06	6.907E-04	5.772E-05
445	5.180E-05	1.213E-03	5.859E-06	8.154E-05	7.542E-05	2.962E-06	5.387E-04	4.875E-05
446	6.012E-05	1.289E-03	6.700E-06	9.396E-05	8.696E-05	3.364E-06	5.703E-04	5.665E-05
447	5.137E-05	1.211E-03	5.713E-06	8.019E-05	7.423E-05	2.866E-06	4.810E-04	4.842E-05
448	4.469E-05	1.063E-03	5.000E-06	6.997E-05	6.475E-05	2.515E-06	4.348E-04	4.210E-05
449	4.952E-05	9.779E-04	5.501E-06	7.723E-05	7.148E-05	2.758E-06	4.602E-04	4.667E-05
450	4.348E-05	9.565E-04	4.837E-06	6.786E-05	6.281E-05	2.427E-06	4.082E-04	4.097E-05
451	3.861E-05	9.052E-04	4.303E-06	6.033E-05	5.584E-05	2.161E-06	3.569E-04	3.638E-05

RECEPTOR # 87 HAS HIGHEST CHRONIC HAZARD INDEX OF 4.784E-02

*** CHRONIC HAZARD INDEX BY POLLUTANT FOR PEAK RECEPTOR # 87 ***

LLUTANT	ORAL DOSE (mg/kg-d)	BACKGR (ug/m3)	AEL (ug/m3)	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
ACETA	0.000E+00	0.000E+00	9.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	0.000E+00	0.000E+00	2.000E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	1.000E-03	0.000E+00	5.000E-01	2.217E-04	2.217E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.217E-04	2.217E-04
BENZE	0.000E+00	0.000E+00	7.100E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	5.000E-03	0.000E+00	4.800E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.222E-03	0.000E+00
Cd	1.000E-03	0.000E+00	3.500E+00	0.000E+00	0.000E+00	0.000E+00	1.170E-06	0.000E+00	0.000E+00	1.170E-06	0.000E+00
Cr	5.000E-03	0.000E+00	2.000E-03	0.000E+00	0.000E+00	0.000E+00	3.386E-04	3.386E-04	0.000E+00	3.386E-04	0.000E+00
Cu	0.000E+00	0.000E+00	2.400E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.880E-06	0.000E+00
HCHO	0.000E+00	0.000E+00	3.600E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	0.000E+00	0.000E+00	7.000E+01	0.000E+00	4.734E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	4.300E-04	0.000E+00	1.500E+00	1.293E-05	1.293E-05	1.293E-05	1.293E-05	0.000E+00	1.293E-05	0.000E+00	0.000E+00
Mn	0.000E+00	0.000E+00	4.000E-01	0.000E+00	2.648E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.648E-04	0.000E+00
Hg	3.000E-04	0.000E+00	3.000E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	0.000E+00	0.000E+00	2.400E-01	0.000E+00	0.000E+00	1.297E-05	1.297E-05	0.000E+00	0.000E+00	1.297E-05	0.000E+00
NAPTH	4.000E-03	0.000E+00	1.400E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	5.000E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	0.000E+00	0.000E+00	2.000E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	0.000E+00	0.000E+00	3.000E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Zn	0.000E+00	0.000E+00	3.500E+01	4.064E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.064E-07	0.000E+00
			SUM =	2.351E-04	4.784E-02	2.590E-05	3.657E-04	3.386E-04	1.293E-05	2.066E-03	2.217E-04

*** CHRONIC HAZARD INDEX BY SOURCE FOR PEAK RECEPTOR # 87 ***

POLLUTANT ACETA ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 9.000E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT ACROL ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.000E-02 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT As ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 5.000E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 1.000E-03

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	1.123E-06	1.123E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.123E-06	1.123E-06
SOURCE # 2	7.473E-07	7.473E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.473E-07	7.473E-07
SOURCE # 3	8.983E-07	8.983E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.983E-07	8.983E-07
SOURCE # 4	1.293E-06	1.293E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.293E-06	1.293E-06
SOURCE # 5	1.820E-07	1.820E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.820E-07	1.820E-07
SOURCE # 6	3.174E-07	3.174E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.174E-07	3.174E-07
SOURCE # 7	2.067E-07	2.067E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.067E-07	2.067E-07
SOURCE # 8	3.102E-07	3.102E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.102E-07	3.102E-07
SOURCE # 9	2.991E-07	2.991E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.991E-07	2.991E-07
SOURCE # 10	3.324E-07	3.324E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.324E-07	3.324E-07
SOURCE # 11	9.925E-08	9.925E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.925E-08	9.925E-08
SOURCE # 12	1.042E-07	1.042E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.042E-07	1.042E-07
SOURCE # 13	1.554E-05	1.554E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.554E-05	1.554E-05
SOURCE # 14	1.038E-05	1.038E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.038E-05	1.038E-05
SOURCE # 15	1.287E-05	1.287E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.287E-05	1.287E-05
SOURCE # 16	1.826E-05	1.826E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.826E-05	1.826E-05
SOURCE # 17	2.586E-06	2.586E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.586E-06	2.586E-06
SOURCE # 18	4.421E-06	4.421E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.421E-06	4.421E-06
SOURCE # 19	9.669E-06	9.669E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.669E-06	9.669E-06
SOURCE # 20	6.556E-06	6.556E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.556E-06	6.556E-06
SOURCE # 21	6.480E-06	6.480E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.480E-06	6.480E-06
SOURCE # 22	1.007E-05	1.007E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.007E-05	1.007E-05
SOURCE # 23	1.526E-06	1.526E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.526E-06	1.526E-06
SOURCE # 24	2.817E-06	2.817E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.817E-06	2.817E-06
SOURCE # 25	1.355E-06	1.355E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.355E-06	1.355E-06
SOURCE # 26	4.748E-05	4.748E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.748E-05	4.748E-05
SOURCE # 27	2.825E-05	2.825E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.825E-05	2.825E-05
SOURCE # 28	2.481E-06	2.481E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.481E-06	2.481E-06
SOURCE # 29	2.561E-06	2.561E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.561E-06	2.561E-06
SOURCE # 30	4.005E-06	4.005E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.005E-06	4.005E-06
SOURCE # 31	3.000E-06	3.000E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.000E-06	3.000E-06
SOURCE # 32	1.757E-06	1.757E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.757E-06	1.757E-06
SOURCE # 33	1.623E-07	1.623E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.623E-07	1.623E-07
SOURCE # 34	1.685E-07	1.685E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.685E-07	1.685E-07
SOURCE # 35	2.655E-07	2.655E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.655E-07	2.655E-07
SOURCE # 36	1.299E-05	1.299E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.299E-05	1.299E-05
SOURCE # 37	7.528E-06	7.528E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.528E-06	7.528E-06
SOURCE # 38	7.198E-07	7.198E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.198E-07	7.198E-07
SOURCE # 39	7.510E-07	7.510E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.510E-07	7.510E-07
SOURCE # 40	1.190E-06	1.190E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.190E-06	1.190E-06
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	2.217E-04	2.217E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.217E-04	2.217E-04

POLLUTANT BENZE ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 7.100E+01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Be ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 4.800E-03 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 5.000E-03

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.602E-05	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.066E-05	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.281E-05	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.844E-05	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.596E-06	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.526E-06	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.974E-06	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.461E-06	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.303E-06	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.780E-06	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.427E-06	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.499E-06	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.217E-04	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.481E-04	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.836E-04	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.605E-04	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.688E-05	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.305E-05	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.691E-06	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.503E-06	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.474E-06	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.847E-06	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.828E-07	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.075E-06	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.664E-04	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.813E-05	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.079E-05	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.469E-07	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.779E-07	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.529E-06	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.146E-06	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.709E-07	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.195E-08	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.434E-08	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.014E-07	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.958E-06	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.876E-06	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.748E-07	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.867E-07	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.543E-07	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.222E-03	0.000E+00

POLLUTANT Cd ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.500E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 1.000E-03

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	5.768E-09	0.000E+00	0.000E+00	5.768E-09	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	3.838E-09	0.000E+00	0.000E+00	3.838E-09	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	4.612E-09	0.000E+00	0.000E+00	4.612E-09	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	6.639E-09	0.000E+00	0.000E+00	6.639E-09	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	9.349E-10	0.000E+00	0.000E+00	9.349E-10	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	1.630E-09	0.000E+00	0.000E+00	1.630E-09	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	1.061E-09	0.000E+00	0.000E+00	1.061E-09	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	1.592E-09	0.000E+00	0.000E+00	1.592E-09	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	1.536E-09	0.000E+00	0.000E+00	1.536E-09	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	1.707E-09	0.000E+00	0.000E+00	1.707E-09	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	5.096E-10	0.000E+00	0.000E+00	5.096E-10	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	5.352E-10	0.000E+00	0.000E+00	5.352E-10	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	7.977E-08	0.000E+00	0.000E+00	7.977E-08	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	5.328E-08	0.000E+00	0.000E+00	5.328E-08	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	6.607E-08	0.000E+00	0.000E+00	6.607E-08	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	9.376E-08	0.000E+00	0.000E+00	9.376E-08	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	1.328E-08	0.000E+00	0.000E+00	1.328E-08	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	2.270E-08	0.000E+00	0.000E+00	2.270E-08	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	4.982E-08	0.000E+00	0.000E+00	4.982E-08	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	3.378E-08	0.000E+00	0.000E+00	3.378E-08	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	3.339E-08	0.000E+00	0.000E+00	3.339E-08	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	5.191E-08	0.000E+00	0.000E+00	5.191E-08	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	7.865E-09	0.000E+00	0.000E+00	7.865E-09	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	1.451E-08	0.000E+00	0.000E+00	1.451E-08	0.000E+00
SOURCE #	25	0.000E+00	0.000E+00	0.000E+00	6.769E-09	0.000E+00	0.000E+00	6.769E-09	0.000E+00
SOURCE #	26	0.000E+00	0.000E+00	0.000E+00	2.447E-07	0.000E+00	0.000E+00	2.447E-07	0.000E+00
SOURCE #	27	0.000E+00	0.000E+00	0.000E+00	1.456E-07	0.000E+00	0.000E+00	1.456E-07	0.000E+00
SOURCE #	28	0.000E+00	0.000E+00	0.000E+00	1.278E-08	0.000E+00	0.000E+00	1.278E-08	0.000E+00
SOURCE #	29	0.000E+00	0.000E+00	0.000E+00	1.319E-08	0.000E+00	0.000E+00	1.319E-08	0.000E+00
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	2.064E-08	0.000E+00	0.000E+00	2.064E-08	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	1.546E-08	0.000E+00	0.000E+00	1.546E-08	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	9.053E-09	0.000E+00	0.000E+00	9.053E-09	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	8.360E-10	0.000E+00	0.000E+00	8.360E-10	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	8.680E-10	0.000E+00	0.000E+00	8.680E-10	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	1.368E-09	0.000E+00	0.000E+00	1.368E-09	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	6.691E-08	0.000E+00	0.000E+00	6.691E-08	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	3.881E-08	0.000E+00	0.000E+00	3.881E-08	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	3.709E-09	0.000E+00	0.000E+00	3.709E-09	0.000E+00
SOURCE #	39	0.000E+00	0.000E+00	0.000E+00	3.869E-09	0.000E+00	0.000E+00	3.869E-09	0.000E+00
SOURCE #	40	0.000E+00	0.000E+00	0.000E+00	6.130E-09	0.000E+00	0.000E+00	6.130E-09	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	2.862E-08	0.000E+00	0.000E+00	2.862E-08	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	0.000E+00	0.000E+00	0.000E+00	1.170E-06	0.000E+00	0.000E+00	1.170E-06	0.000E+00

POLLUTANT C: ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.000E-03 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 5.000E-03

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	1.826E-06	1.826E-06	0.000E+00	1.826E-06	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	1.215E-06	1.215E-06	0.000E+00	1.215E-06	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	1.460E-06	1.460E-06	0.000E+00	1.460E-06	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	2.101E-06	2.101E-06	0.000E+00	2.101E-06	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	2.958E-07	2.958E-07	0.000E+00	2.958E-07	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	5.157E-07	5.157E-07	0.000E+00	5.157E-07	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	3.362E-07	3.362E-07	0.000E+00	3.362E-07	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	5.045E-07	5.045E-07	0.000E+00	5.045E-07	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	4.864E-07	4.864E-07	0.000E+00	4.864E-07	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	5.405E-07	5.405E-07	0.000E+00	5.405E-07	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	1.614E-07	1.614E-07	0.000E+00	1.614E-07	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	1.695E-07	1.695E-07	0.000E+00	1.695E-07	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	2.526E-05	2.526E-05	0.000E+00	2.526E-05	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	1.687E-05	1.687E-05	0.000E+00	1.687E-05	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	2.091E-05	2.091E-05	0.000E+00	2.091E-05	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	2.967E-05	2.967E-05	0.000E+00	2.967E-05	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	4.201E-06	4.201E-06	0.000E+00	4.201E-06	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	7.183E-06	7.183E-06	0.000E+00	7.183E-06	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	1.417E-05	1.417E-05	0.000E+00	1.417E-05	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	9.611E-06	9.611E-06	0.000E+00	9.611E-06	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	9.502E-06	9.502E-06	0.000E+00	9.502E-06	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	1.477E-05	1.477E-05	0.000E+00	1.477E-05	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	2.239E-06	2.239E-06	0.000E+00	2.239E-06	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	4.131E-06	4.131E-06	0.000E+00	4.131E-06	0.000E+00
SOURCE #	25	0.000E+00	0.000E+00	0.000E+00	3.884E-06	3.884E-06	0.000E+00	3.884E-06	0.000E+00
SOURCE #	26	0.000E+00	0.000E+00	0.000E+00	6.962E-05	6.962E-05	0.000E+00	6.962E-05	0.000E+00
SOURCE #	27	0.000E+00	0.000E+00	0.000E+00	4.143E-05	4.143E-05	0.000E+00	4.143E-05	0.000E+00
SOURCE #	28	0.000E+00	0.000E+00	0.000E+00	3.638E-06	3.638E-06	0.000E+00	3.638E-06	0.000E+00
SOURCE #	29	0.000E+00	0.000E+00	0.000E+00	3.755E-06	3.755E-06	0.000E+00	3.755E-06	0.000E+00
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	5.873E-06	5.873E-06	0.000E+00	5.873E-06	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	4.400E-06	4.400E-06	0.000E+00	4.400E-06	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	2.576E-06	2.576E-06	0.000E+00	2.576E-06	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	2.378E-07	2.378E-07	0.000E+00	2.378E-07	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	2.470E-07	2.470E-07	0.000E+00	2.470E-07	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	3.893E-07	3.893E-07	0.000E+00	3.893E-07	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	1.904E-05	1.904E-05	0.000E+00	1.904E-05	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	1.104E-05	1.104E-05	0.000E+00	1.104E-05	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	1.055E-06	1.055E-06	0.000E+00	1.055E-06	0.000E+00

SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	1.101E-06	1.101E-06	0.000E+00	1.101E-06	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	1.744E-06	1.744E-06	0.000E+00	1.744E-06	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	4.744E-07	4.744E-07	0.000E+00	4.744E-07	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	3.386E-04	3.386E-04	0.000E+00	3.386E-04	0.000E+00

POLLUTANT Cu ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.400E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.969E-08	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.310E-08	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.575E-08	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.266E-08	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.191E-09	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.564E-09	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.624E-09	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.437E-09	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.245E-09	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.826E-09	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.740E-09	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.827E-09	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.724E-07	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.820E-07	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.256E-07	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.201E-07	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.533E-08	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.750E-08	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.690E-07	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.146E-07	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.132E-07	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.760E-07	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.667E-08	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.921E-08	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.438E-08	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.296E-07	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.936E-07	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.336E-08	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.475E-08	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.998E-08	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.241E-08	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.070E-08	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.835E-09	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.944E-09	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.639E-09	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.270E-07	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.316E-07	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.258E-08	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.312E-08	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.079E-08	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.880E-06	0.000E+00

POLLUTANT HCHO ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.600E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT HCN ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 7.000E+01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	2.447E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	4.489E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	4.718E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	4.734E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Pb ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 1.500E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 4.300E-04

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	7.966E-08	7.966E-08	7.966E-08	7.966E-08	0.000E+00	7.966E-08	0.000E+00	0.000E+00
SOURCE # 2	5.301E-08	5.301E-08	5.301E-08	5.301E-08	0.000E+00	5.301E-08	0.000E+00	0.000E+00
SOURCE # 3	6.372E-08	6.372E-08	6.372E-08	6.372E-08	0.000E+00	6.372E-08	0.000E+00	0.000E+00
SOURCE # 4	9.170E-08	9.170E-08	9.170E-08	9.170E-08	0.000E+00	9.170E-08	0.000E+00	0.000E+00
SOURCE # 5	1.291E-08	1.291E-08	1.291E-08	1.291E-08	0.000E+00	1.291E-08	0.000E+00	0.000E+00
SOURCE # 6	2.251E-08	2.251E-08	2.251E-08	2.251E-08	0.000E+00	2.251E-08	0.000E+00	0.000E+00
SOURCE # 7	1.470E-08	1.470E-08	1.470E-08	1.470E-08	0.000E+00	1.470E-08	0.000E+00	0.000E+00
SOURCE # 8	2.205E-08	2.205E-08	2.205E-08	2.205E-08	0.000E+00	2.205E-08	0.000E+00	0.000E+00
SOURCE # 9	2.126E-08	2.126E-08	2.126E-08	2.126E-08	0.000E+00	2.126E-08	0.000E+00	0.000E+00
SOURCE # 10	2.363E-08	2.363E-08	2.363E-08	2.363E-08	0.000E+00	2.363E-08	0.000E+00	0.000E+00
SOURCE # 11	7.054E-09	7.054E-09	7.054E-09	7.054E-09	0.000E+00	7.054E-09	0.000E+00	0.000E+00
SOURCE # 12	7.408E-09	7.408E-09	7.408E-09	7.408E-09	0.000E+00	7.408E-09	0.000E+00	0.000E+00

SOURCE # 13	1.102E-06	1.102E-06	1.102E-06	1.102E-06	0.000E+00	1.102E-06	0.000E+00	0.000E+00
SOURCE # 14	7.361E-07	7.361E-07	7.361E-07	7.361E-07	0.000E+00	7.361E-07	0.000E+00	0.000E+00
SOURCE # 15	9.127E-07	9.127E-07	9.127E-07	9.127E-07	0.000E+00	9.127E-07	0.000E+00	0.000E+00
SOURCE # 16	1.295E-06	1.295E-06	1.295E-06	1.295E-06	0.000E+00	1.295E-06	0.000E+00	0.000E+00
SOURCE # 17	1.834E-07	1.834E-07	1.834E-07	1.834E-07	0.000E+00	1.834E-07	0.000E+00	0.000E+00
SOURCE # 18	3.135E-07	3.135E-07	3.135E-07	3.135E-07	0.000E+00	3.135E-07	0.000E+00	0.000E+00
SOURCE # 19	4.923E-07	4.923E-07	4.923E-07	4.923E-07	0.000E+00	4.923E-07	0.000E+00	0.000E+00
SOURCE # 20	3.338E-07	3.338E-07	3.338E-07	3.338E-07	0.000E+00	3.338E-07	0.000E+00	0.000E+00
SOURCE # 21	3.300E-07	3.300E-07	3.300E-07	3.300E-07	0.000E+00	3.300E-07	0.000E+00	0.000E+00
SOURCE # 22	5.132E-07	5.132E-07	5.132E-07	5.132E-07	0.000E+00	5.132E-07	0.000E+00	0.000E+00
SOURCE # 23	7.773E-08	7.773E-08	7.773E-08	7.773E-08	0.000E+00	7.773E-08	0.000E+00	0.000E+00
SOURCE # 24	1.434E-07	1.434E-07	1.434E-07	1.434E-07	0.000E+00	1.434E-07	0.000E+00	0.000E+00
SOURCE # 25	3.080E-07	3.080E-07	3.080E-07	3.080E-07	0.000E+00	3.080E-07	0.000E+00	0.000E+00
SOURCE # 26	2.418E-06	2.418E-06	2.418E-06	2.418E-06	0.000E+00	2.418E-06	0.000E+00	0.000E+00
SOURCE # 27	1.439E-06	1.439E-06	1.439E-06	1.439E-06	0.000E+00	1.439E-06	0.000E+00	0.000E+00
SOURCE # 28	1.263E-07	1.263E-07	1.263E-07	1.263E-07	0.000E+00	1.263E-07	0.000E+00	0.000E+00
SOURCE # 29	1.304E-07	1.304E-07	1.304E-07	1.304E-07	0.000E+00	1.304E-07	0.000E+00	0.000E+00
SOURCE # 30	2.040E-07	2.040E-07	2.040E-07	2.040E-07	0.000E+00	2.040E-07	0.000E+00	0.000E+00
SOURCE # 31	1.528E-07	1.528E-07	1.528E-07	1.528E-07	0.000E+00	1.528E-07	0.000E+00	0.000E+00
SOURCE # 32	8.948E-08	8.948E-08	8.948E-08	8.948E-08	0.000E+00	8.948E-08	0.000E+00	0.000E+00
SOURCE # 33	8.264E-09	8.264E-09	8.264E-09	8.264E-09	0.000E+00	8.264E-09	0.000E+00	0.000E+00
SOURCE # 34	8.582E-09	8.582E-09	8.582E-09	8.582E-09	0.000E+00	8.582E-09	0.000E+00	0.000E+00
SOURCE # 35	1.353E-08	1.353E-08	1.353E-08	1.353E-08	0.000E+00	1.353E-08	0.000E+00	0.000E+00
SOURCE # 36	6.613E-07	6.613E-07	6.613E-07	6.613E-07	0.000E+00	6.613E-07	0.000E+00	0.000E+00
SOURCE # 37	3.835E-07	3.835E-07	3.835E-07	3.835E-07	0.000E+00	3.835E-07	0.000E+00	0.000E+00
SOURCE # 38	3.665E-08	3.665E-08	3.665E-08	3.665E-08	0.000E+00	3.665E-08	0.000E+00	0.000E+00
SOURCE # 39	3.824E-08	3.824E-08	3.824E-08	3.824E-08	0.000E+00	3.824E-08	0.000E+00	0.000E+00
SOURCE # 40	6.060E-08	6.060E-08	6.060E-08	6.060E-08	0.000E+00	6.060E-08	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	1.293E-05	1.293E-05	1.293E-05	1.293E-05	0.000E+00	1.293E-05	0.000E+00	0.000E+00

POLLUTANT Mn ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 4.000E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	1.429E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.429E-06	0.000E+00
SOURCE # 2	0.000E+00	9.509E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.509E-07	0.000E+00
SOURCE # 3	0.000E+00	1.143E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.143E-06	0.000E+00
SOURCE # 4	0.000E+00	1.645E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.645E-06	0.000E+00
SOURCE # 5	0.000E+00	2.316E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.316E-07	0.000E+00
SOURCE # 6	0.000E+00	4.038E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.038E-07	0.000E+00
SOURCE # 7	0.000E+00	2.633E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.633E-07	0.000E+00
SOURCE # 8	0.000E+00	3.950E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.950E-07	0.000E+00
SOURCE # 9	0.000E+00	3.809E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.809E-07	0.000E+00
SOURCE # 10	0.000E+00	4.231E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.231E-07	0.000E+00
SOURCE # 11	0.000E+00	1.264E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.264E-07	0.000E+00
SOURCE # 12	0.000E+00	1.327E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.327E-07	0.000E+00
SOURCE # 13	0.000E+00	1.977E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.977E-05	0.000E+00
SOURCE # 14	0.000E+00	1.321E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.321E-05	0.000E+00
SOURCE # 15	0.000E+00	1.638E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.638E-05	0.000E+00
SOURCE # 16	0.000E+00	2.324E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.324E-05	0.000E+00
SOURCE # 17	0.000E+00	3.290E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.290E-06	0.000E+00
SOURCE # 18	0.000E+00	5.625E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.625E-06	0.000E+00
SOURCE # 19	0.000E+00	1.110E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.110E-05	0.000E+00
SOURCE # 20	0.000E+00	7.523E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.523E-06	0.000E+00
SOURCE # 21	0.000E+00	7.440E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.440E-06	0.000E+00
SOURCE # 22	0.000E+00	1.157E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.157E-05	0.000E+00
SOURCE # 23	0.000E+00	1.753E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.753E-06	0.000E+00
SOURCE # 24	0.000E+00	3.234E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.234E-06	0.000E+00
SOURCE # 25	0.000E+00	3.042E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.042E-06	0.000E+00
SOURCE # 26	0.000E+00	5.451E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.451E-05	0.000E+00
SOURCE # 27	0.000E+00	3.244E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.244E-05	0.000E+00
SOURCE # 28	0.000E+00	2.848E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.848E-06	0.000E+00
SOURCE # 29	0.000E+00	2.940E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.940E-06	0.000E+00
SOURCE # 30	0.000E+00	4.599E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.599E-06	0.000E+00
SOURCE # 31	0.000E+00	3.444E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.444E-06	0.000E+00
SOURCE # 32	0.000E+00	2.017E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.017E-06	0.000E+00
SOURCE # 33	0.000E+00	1.862E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.862E-07	0.000E+00
SOURCE # 34	0.000E+00	1.934E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.934E-07	0.000E+00
SOURCE # 35	0.000E+00	3.048E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.048E-07	0.000E+00
SOURCE # 36	0.000E+00	1.490E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.490E-05	0.000E+00
SOURCE # 37	0.000E+00	8.646E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.646E-06	0.000E+00
SOURCE # 38	0.000E+00	8.264E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.264E-07	0.000E+00
SOURCE # 39	0.000E+00	8.623E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.623E-07	0.000E+00
SOURCE # 40	0.000E+00	1.366E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.366E-06	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	2.648E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.648E-04	0.000E+00

POLLUTANT Hg ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.000E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 3.000E-04

CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN

SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Ni   ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.400E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	7.118E-08	7.118E-08	0.000E+00	0.000E+00	7.118E-08	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	4.737E-08	4.737E-08	0.000E+00	0.000E+00	4.737E-08	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	5.692E-08	5.692E-08	0.000E+00	0.000E+00	5.692E-08	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	8.192E-08	8.192E-08	0.000E+00	0.000E+00	8.192E-08	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	1.153E-08	1.153E-08	0.000E+00	0.000E+00	1.153E-08	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	2.011E-08	2.011E-08	0.000E+00	0.000E+00	2.011E-08	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	1.311E-08	1.311E-08	0.000E+00	0.000E+00	1.311E-08	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	1.967E-08	1.967E-08	0.000E+00	0.000E+00	1.967E-08	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	1.898E-08	1.898E-08	0.000E+00	0.000E+00	1.898E-08	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	2.109E-08	2.109E-08	0.000E+00	0.000E+00	2.109E-08	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	6.298E-09	6.298E-09	0.000E+00	0.000E+00	6.298E-09	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	6.614E-09	6.614E-09	0.000E+00	0.000E+00	6.614E-09	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	9.848E-07	9.848E-07	0.000E+00	0.000E+00	9.848E-07	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	6.578E-07	6.578E-07	0.000E+00	0.000E+00	6.578E-07	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	8.156E-07	8.156E-07	0.000E+00	0.000E+00	8.156E-07	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	1.157E-06	1.157E-06	0.000E+00	0.000E+00	1.157E-06	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	1.638E-07	1.638E-07	0.000E+00	0.000E+00	1.638E-07	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	2.801E-07	2.801E-07	0.000E+00	0.000E+00	2.801E-07	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	5.374E-07	5.374E-07	0.000E+00	0.000E+00	5.374E-07	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	3.644E-07	3.644E-07	0.000E+00	0.000E+00	3.644E-07	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	3.602E-07	3.602E-07	0.000E+00	0.000E+00	3.602E-07	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	5.600E-07	5.600E-07	0.000E+00	0.000E+00	5.600E-07	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	8.486E-08	8.486E-08	0.000E+00	0.000E+00	8.486E-08	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	1.566E-07	1.566E-07	0.000E+00	0.000E+00	1.566E-07	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	1.683E-07	1.683E-07	0.000E+00	0.000E+00	1.683E-07	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	2.640E-06	2.640E-06	0.000E+00	0.000E+00	2.640E-06	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	1.571E-06	1.571E-06	0.000E+00	0.000E+00	1.571E-06	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	1.379E-07	1.379E-07	0.000E+00	0.000E+00	1.379E-07	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	1.424E-07	1.424E-07	0.000E+00	0.000E+00	1.424E-07	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	2.227E-07	2.227E-07	0.000E+00	0.000E+00	2.227E-07	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	1.668E-07	1.668E-07	0.000E+00	0.000E+00	1.668E-07	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	9.769E-08	9.769E-08	0.000E+00	0.000E+00	9.769E-08	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	9.020E-09	9.020E-09	0.000E+00	0.000E+00	9.020E-09	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	9.370E-09	9.370E-09	0.000E+00	0.000E+00	9.370E-09	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	1.476E-08	1.476E-08	0.000E+00	0.000E+00	1.476E-08	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	7.218E-07	7.218E-07	0.000E+00	0.000E+00	7.218E-07	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	4.186E-07	4.186E-07	0.000E+00	0.000E+00	4.186E-07	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	4.001E-08	4.001E-08	0.000E+00	0.000E+00	4.001E-08	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	4.175E-08	4.175E-08	0.000E+00	0.000E+00	4.175E-08	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	6.615E-08	6.615E-08	0.000E+00	0.000E+00	6.615E-08	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	1.297E-05	1.297E-05	0.000E+00	0.000E+00	1.297E-05	0.000E+00

POLLUTANT NAPTH   ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 1.400E+01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 4.000E-03

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Se   ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 5.000E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT TOL   ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.000E+02 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT XYLEN   ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.000E+02 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Zn ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.500E+01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	2.062E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.062E-09	0.000E+00
SOURCE # 2	1.372E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.372E-09	0.000E+00
SOURCE # 3	1.649E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.649E-09	0.000E+00
SOURCE # 4	2.373E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.373E-09	0.000E+00
SOURCE # 5	3.342E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.342E-10	0.000E+00
SOURCE # 6	5.826E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.826E-10	0.000E+00
SOURCE # 7	3.796E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.796E-10	0.000E+00
SOURCE # 8	5.695E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.695E-10	0.000E+00
SOURCE # 9	5.493E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.493E-10	0.000E+00
SOURCE # 10	6.102E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.102E-10	0.000E+00
SOURCE # 11	1.822E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.822E-10	0.000E+00
SOURCE # 12	1.914E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.914E-10	0.000E+00
SOURCE # 13	2.853E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.853E-08	0.000E+00
SOURCE # 14	1.906E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.906E-08	0.000E+00
SOURCE # 15	2.362E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.362E-08	0.000E+00
SOURCE # 16	3.353E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.353E-08	0.000E+00
SOURCE # 17	4.747E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.747E-09	0.000E+00
SOURCE # 18	8.116E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.116E-09	0.000E+00
SOURCE # 19	1.770E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.770E-08	0.000E+00
SOURCE # 20	1.200E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.200E-08	0.000E+00
SOURCE # 21	1.186E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.186E-08	0.000E+00
SOURCE # 22	1.844E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.844E-08	0.000E+00
SOURCE # 23	2.795E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.795E-09	0.000E+00
SOURCE # 24	5.157E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.157E-09	0.000E+00
SOURCE # 25	2.545E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.545E-09	0.000E+00
SOURCE # 26	8.692E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.692E-08	0.000E+00
SOURCE # 27	5.172E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.172E-08	0.000E+00
SOURCE # 28	4.541E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.541E-09	0.000E+00
SOURCE # 29	4.689E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.689E-09	0.000E+00
SOURCE # 30	7.331E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.331E-09	0.000E+00
SOURCE # 31	5.492E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.492E-09	0.000E+00
SOURCE # 32	3.216E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.216E-09	0.000E+00
SOURCE # 33	2.970E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.970E-10	0.000E+00
SOURCE # 34	3.085E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.085E-10	0.000E+00
SOURCE # 35	4.861E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.861E-10	0.000E+00
SOURCE # 36	2.377E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.377E-08	0.000E+00
SOURCE # 37	1.378E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.378E-08	0.000E+00
SOURCE # 38	1.318E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.318E-09	0.000E+00
SOURCE # 39	1.375E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.375E-09	0.000E+00
SOURCE # 40	2.178E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.178E-09	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	4.064E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.064E-07	0.000E+00

*** SUMMARY OF MAXIMUM PREDICTED RISKS ***

CANCER RISK ASSESSMENT

SIGNIFICANT RISK LEVEL = 1.000E-06
IMPACT ZONE RISK LEVEL = 1.000E-07
MAXIMUM PEAK RISK = 2.418E-06
PREDICTED AT RECEPTOR # 69
TOTAL EXCESS BURDEN = 0.000E+00

59 RECEPTORS WITH RISK EXCEEDING SIGNIFICANT RISK LEVEL OF 1.000E-06

42	43	44	45	48	49	50	62	63	64
65	66	67	68	69	70	71	72	91	92
93	103	104	105	106	107	115	116	117	118
119	120	127	128	129	130	131	132	133	139
140	141	142	143	144	145	146	151	152	153
178	188	189	190	191	198	199	200	201	

ACUTE EXPOSURE TO NON-CANCER POLLUTANTS

SIGNIFICANT HAZARD INDEX = 0.5000
MAXIMUM HAZARD INDEX FOR AN ENDPOINT = 0.0137
PREDICTED AT RECEPTOR # 34

0 RECEPTORS WITH HAZARD INDEX .GE. 0.5000 FOR ONE OR MORE TOXICOLOGICAL ENDPOINTS

CHRONIC EXPOSURE TO NON-CANCER POLLUTANTS

SIGNIFICANT HAZARD INDEX = 0.5000
MAXIMUM HAZARD INDEX FOR AN ENDPOINT = 0.0478
PREDICTED AT RECEPTOR # 87

0 RECEPTORS WITH HAZARD INDEX .GE. 0.5000 FOR ONE OR MORE TOXICOLOGICAL ENDPOINTS

*** END OF ACE2588 SIMULATION ***

APPENDIX J

***** A C E 2 5 8 8 --- ASSESSMENT OF CHEMICAL EXPOSURE FOR AB 2588 --- VERSION 93288 *****

*** A MULTI-SOURCE, MULTI-POLLUTANT, MULTI-PATHWAY RISK ASSESSMENT MODEL

DEVELOPED BY APPLIED MODELING INC. AND SANTA BARBARA COUNTY APCD ***

Distributed and Maintained by CAPCOA

*** INPUT MODELING PARAMETERS ***

DISPERSION MODELING OPTION =	1
RISK ASSESSMENT OPTION =	0
NONCANCER ACUTE OPTION =	1
DIAGNOSTIC PRINT OUTPUT OPTION =	0
NUMBER OF RECEPTORS =	451
NUMBER OF SOURCES =	46
NUMBER OF POLLUTANTS =	22
NUMBER OF DISPERSION MODELING HOURS =	8760
NUMBER OF DISPERSION MODELING DAYS =	365

IDODIS = 1 ==> ISCST DISPERSION MODELING WITH SEQUENTIAL METEOROLOGY
ANNUAL CONCENTRATIONS COMPUTED AS AVERAGES OF 1-HOUR CONC.

IDORISK = 0 ==> FULL MODEL RUN FOR RISK ASSESSMENT FROM ALL SOURCES AT ALL RECEPTORS

IDOACU = 1 ==> NONCANCER ACUTE EXPOSURE PERFORMED

IDOPRT = 0 ==> DIAGNOSTIC PRINT OUTPUT NOT CREATED

IDENTIFICATION NUMBERS OF MODELED POLLUTANTS:

1 3 10 13 17 22 36 38 70 79 83 85 87 111 110
130 134 137 145 151 152 998

*** POLLUTANT-SPECIFIC DATA ***

NAME	SYMBOL	NUM	UNIT RISK (ug/m3)-1	POTENCY (mg/kg-d)-1	ACUTE AEL (ug/m3)	CHRONIC AEL (ug/m3)	ORAL DOSE (mg/kg-d)	CHRONIC TOX ENDPOINTS								ACUTE TOX ENDPOINTS							
								CV	CN	IM	KI	LI	RP	RE	SK	CV	CN	IM	KI	LI	RP	RE	EY
Acetaldehyde	ACETA	1	2.70E-06	0.00E+00	0.00E+00	9.00E+00	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Acrolein	ACROL	3	0.00E+00	0.00E+00	2.50E+00	2.00E-02	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Arsenic	As	10	3.30E-03	1.70E+00	0.00E+00	5.00E-01	1.00E-03	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Benzene	BENZE	13	2.90E-05	0.00E+00	0.00E+00	7.10E+01	0.00E+00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beryllium	Be	17	2.40E-03	4.30E+00	0.00E+00	4.80E-03	5.00E-03	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Cadmium	Cd	22	4.20E-03	0.00E+00	0.00E+00	3.50E+00	1.00E-03	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
Chromium (hex.)	Cr	36	1.40E-01	4.20E-01	0.00E+00	2.00E-03	5.00E-03	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0
Copper	Cu	38	0.00E+00	0.00E+00	1.00E+01	2.40E+00	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Formaldehyde	HCHO	70	6.00E-06	0.00E+00	3.70E+02	3.60E+00	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Hydrogen cyanide	HCN	79	0.00E+00	0.00E+00	3.30E+03	7.00E+01	0.00E+00	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Lead	Pb	83	8.00E-05	0.00E+00	0.00E+00	1.50E+00	4.30E-04	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0
Manganese	Mn	85	0.00E+00	0.00E+00	0.00E+00	4.00E-01	0.00E+00	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Mercury	Hg	87	0.00E+00	0.00E+00	3.00E+01	3.00E-01	3.00E-04	1	1	0	1	1	0	1	0	0	1	0	1	1	0	0	0
Nickel	Ni	111	2.60E-04	0.00E+00	1.00E+00	2.40E-01	0.00E+00	0	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0
Naphthalene	NAPTH	110	0.00E+00	0.00E+00	0.00E+00	1.40E+01	4.00E-03	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polycyclic arom. HC	PAH	130	1.70E-03	1.15E+01	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propylene	PROPL	134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenium	Se	137	1.40E-04	0.00E+00	2.00E+00	5.00E-01	0.00E+00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Toluene	TOL	145	0.00E+00	0.00E+00	0.00E+00	2.00E+02	0.00E+00	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Xylene	XYLEN	151	0.00E+00	0.00E+00	4.40E+03	3.00E+02	0.00E+00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0
Zinc	Zn	152	0.00E+00	0.00E+00	0.00E+00	3.50E+01	0.00E+00	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
NonToxic PM10	NTXPM	998	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL NUMBER OF MODELED POLLUTANTS = 22

NUMBER OF CARCINOGENIC POLLUTANTS = 11

1 10 13 17 22 36 70 83 111 130
137

NUMBER OF MULTIPATHWAY POLLUTANTS = 8

10 17 22 36 83 87 110 130

NUMBER OF POLLUTANTS WITH ACUTE NON-CANCER RISK = 8

3 38 70 79 87 111 137 151

MAXIMUM NUMBER OF ACUTE TOXICOLOGICAL ENDPOINTS = 3

NUMBER OF POLLUTANTS WITH CHRONIC NON-CANCER RISK = 19

1 3 10 13 17 22 36 38 70 79
83 85 87 111 110 137 145 151 152

MAXIMUM NUMBER OF CHRONIC TOXICOLOGICAL ENDPOINTS = 5

REQUIRED TOTAL ARRAY SIZE = 947848 WORDS

GOLDEN QUEEN MINING - SOLEDAD MTN PROJECT - ALL RECEPTORS, 1991 MET, TSP * OUTPUT OF AMI/SBCAPCD ACE2588 MODEL VERS. 93288 *
Input File: g:\beest\GQ\gqtspace.dat Output File: g:\beest\GQ\GQtspace.OUT 11/14/96 07:44:58 Page - 5

*** INPUT SOURCE EMISSION RATES ****

FOR SOURCE # 1 DRILLING_PIT1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	5.401E-07	4.287E-06	4.096E-07	2.848E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.258E-07	2.586E-06	5.608E-08	3.899E-03
Cd	22	1.948E-08	1.546E-07	1.472E-08	1.023E-03
Cr	36	3.168E-09	2.514E-08	2.662E-09	1.851E-04
Cu	38	4.530E-08	3.595E-07	3.447E-08	2.396E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.884E-07	1.495E-06	8.714E-08	6.058E-03
Mn	85	4.961E-07	3.937E-06	4.169E-07	2.898E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.647E-08	1.307E-07	1.246E-08	8.663E-04
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	6.922E-08	5.494E-07	5.264E-08	3.660E-03
NTXPM	998	6.336E-03	5.029E-02	5.325E-03	3.702E+02

FOR SOURCE # 2 DRILLING_PIT2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	5.401E-07	4.287E-06	4.096E-07	2.848E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.258E-07	2.586E-06	5.608E-08	3.899E-03
Cd	22	1.948E-08	1.546E-07	1.472E-08	1.023E-03
Cr	36	3.168E-09	2.514E-08	2.662E-09	1.851E-04
Cu	38	4.530E-08	3.595E-07	3.447E-08	2.396E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.884E-07	1.495E-06	8.714E-08	6.058E-03
Mn	85	4.961E-07	3.937E-06	4.169E-07	2.898E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.647E-08	1.307E-07	1.246E-08	8.663E-04
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	6.922E-08	5.494E-07	5.264E-08	3.660E-03
NTXPM	998	6.336E-03	5.029E-02	5.325E-03	3.702E+02

FOR SOURCE # 3 DRILLING_PIT3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.850E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.079E-06	1.650E-05	1.577E-06	1.096E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.254E-06	9.952E-06	2.159E-07	1.501E-02
Cd	22	7.501E-08	5.953E-07	5.668E-08	3.941E-03
Cr	36	1.220E-08	9.683E-08	1.025E-08	7.126E-04
Cu	38	1.744E-07	1.384E-06	1.327E-07	9.226E-03

HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	7.253E-07	5.756E-06	3.355E-07	2.333E-02
Mn	85	1.910E-06	1.516E-05	1.605E-06	1.116E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	6.342E-08	5.033E-07	4.797E-08	3.335E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.665E-07	2.115E-06	2.027E-07	1.409E-02
NTXPM	998	2.439E-02	1.936E-01	2.050E-02	1.425E+03

FOR SOURCE # 4 DRILLING_PIT4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.725E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.552E-06	2.025E-05	1.935E-06	1.345E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.539E-06	1.221E-05	2.650E-07	1.842E-02
Cd	22	9.205E-08	7.306E-07	6.956E-08	4.836E-03
Cr	36	1.497E-08	1.188E-07	1.258E-08	8.746E-04
Cu	38	2.140E-07	1.698E-06	1.629E-07	1.133E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	8.901E-07	7.064E-06	4.118E-07	2.863E-02
Mn	85	2.344E-06	1.860E-05	1.970E-06	1.370E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	7.783E-08	6.177E-07	5.887E-08	4.093E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.270E-07	2.595E-06	2.487E-07	1.729E-02
NTXPM	998	2.994E-02	2.376E-01	2.516E-02	1.749E+03

FOR SOURCE # 5 DRILLING_PIT5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.520E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.210E-07	6.516E-06	6.226E-07	4.329E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	4.952E-07	3.930E-06	8.525E-08	5.927E-03
Cd	22	2.961E-08	2.350E-07	2.238E-08	1.556E-03
Cr	36	4.815E-09	3.821E-08	4.047E-09	2.814E-04
Cu	38	6.886E-08	5.465E-07	5.239E-08	3.642E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.863E-07	2.272E-06	1.325E-07	9.212E-03
Mn	85	7.540E-07	5.984E-06	6.337E-07	4.406E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.504E-08	1.987E-07	1.894E-08	1.317E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.052E-07	8.349E-07	8.002E-08	5.563E-03
NTXPM	998	9.630E-03	7.643E-02	8.093E-03	5.627E+02

FOR SOURCE # 6 DRILLING_PIT6
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.520E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.210E-07	6.516E-06	6.226E-07	4.329E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	4.952E-07	3.930E-06	8.525E-08	5.927E-03
Cd	22	2.961E-08	2.350E-07	2.238E-08	1.556E-03
Cr	36	4.815E-09	3.821E-08	4.047E-09	2.814E-04
Cu	38	6.886E-08	5.465E-07	5.239E-08	3.642E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.863E-07	2.272E-06	1.325E-07	9.212E-03
Mn	85	7.540E-07	5.984E-06	6.337E-07	4.406E-02

Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.504E-08	1.987E-07	1.894E-08	1.317E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.052E-07	8.349E-07	8.002E-08	5.563E-03
NTXPM	998	9.630E-03	7.643E-02	8.093E-03	5.627E+02

FOR SOURCE # 7 BLASTING_PIT1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	3.348E-06	2.328E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	4.623E-07	3.214E-02
Cd	22	3.017E-05	2.394E-04	1.203E-07	8.364E-03
Cr	36	9.891E-06	7.850E-05	2.178E-08	1.514E-03
Cu	38	7.451E-05	5.913E-04	2.817E-07	1.958E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	7.140E-07	4.964E-02
Mn	85	1.549E-03	1.229E-02	3.411E-06	2.371E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	1.019E-07	7.084E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	4.303E-07	2.992E-02
NTXPM	998	1.978E+01	1.570E+02	4.356E-02	3.028E+03

FOR SOURCE # 8 BLASTING_PIT2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	3.348E-06	2.328E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	4.623E-07	3.214E-02
Cd	22	3.017E-05	2.394E-04	1.203E-07	8.364E-03
Cr	36	9.891E-06	7.850E-05	2.178E-08	1.514E-03
Cu	38	7.451E-05	5.913E-04	2.817E-07	1.958E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	7.140E-07	4.964E-02
Mn	85	1.549E-03	1.229E-02	3.411E-06	2.371E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	1.019E-07	7.084E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	4.303E-07	2.992E-02
NTXPM	998	1.978E+01	1.570E+02	4.356E-02	3.028E+03

FOR SOURCE # 9 BLASTING_PIT3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	1.289E-05	8.962E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	1.780E-06	1.238E-01
Cd	22	3.017E-05	2.394E-04	4.633E-07	3.221E-02
Cr	36	9.891E-06	7.850E-05	8.385E-08	5.830E-03
Cu	38	7.451E-05	5.913E-04	1.085E-06	7.543E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	2.749E-06	1.911E-01
Mn	85	1.549E-03	1.229E-02	1.313E-05	9.128E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	3.925E-07	2.729E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00

PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	1.657E-06	1.152E-01
NTXPM	998	1.978E+01	1.570E+02	1.677E-01	1.166E+04

FOR SOURCE # 10 BLASTING_PIT4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	(lb/hr)	ANNUAL RATE (g/s)	(lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	1.582E-05	1.100E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	2.184E-06	1.518E-01
Cd	22	3.017E-05	2.394E-04	5.686E-07	3.953E-02
Cr	36	9.891E-06	7.850E-05	1.029E-07	7.154E-03
Cu	38	7.451E-05	5.913E-04	1.331E-06	9.254E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	3.374E-06	2.346E-01
Mn	85	1.549E-03	1.229E-02	1.611E-05	1.120E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	4.817E-07	3.349E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	2.033E-06	1.413E-01
NTXPM	998	1.978E+01	1.570E+02	2.058E-01	1.431E+04

FOR SOURCE # 11 BLASTING_PIT5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	(lb/hr)	ANNUAL RATE (g/s)	(lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	5.089E-06	3.538E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	7.026E-07	4.885E-02
Cd	22	3.017E-05	2.394E-04	1.829E-07	1.272E-02
Cr	36	9.891E-06	7.850E-05	3.310E-08	2.301E-03
Cu	38	7.451E-05	5.913E-04	4.282E-07	2.977E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	1.085E-06	7.543E-02
Mn	85	1.549E-03	1.229E-02	5.184E-06	3.604E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	1.550E-07	1.078E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.134E-04	9.000E-04	6.540E-07	4.547E-02
NTXPM	998	1.978E+01	1.570E+02	6.621E-02	4.603E+03

FOR SOURCE # 12 BLASTING_PIT6
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	(lb/hr)	ANNUAL RATE (g/s)	(lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.630E-04	6.849E-03	5.089E-06	3.538E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.017E-03	8.071E-03	7.026E-07	4.885E-02
Cd	22	3.017E-05	2.394E-04	1.829E-07	1.272E-02
Cr	36	9.891E-06	7.850E-05	3.310E-08	2.301E-03
Cu	38	7.451E-05	5.913E-04	4.282E-07	2.977E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.882E-04	4.668E-03	1.085E-06	7.543E-02
Mn	85	1.549E-03	1.229E-02	5.184E-06	3.604E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.143E-05	4.082E-04	1.550E-07	1.078E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Zn	152	1.134E-04	9.000E-04	6.540E-07	4.547E-02
NTXPM	998	1.978E+01	1.570E+02	6.621E-02	4.603E+03

FOR SOURCE # 13 TRKLOAD_PIT1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	4.530E-06	3.595E-05	6.078E-06	4.226E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	5.339E-06	4.237E-05	8.323E-07	5.786E-02
Cd	22	1.583E-07	1.256E-06	2.185E-07	1.519E-02
Cr	36	5.192E-08	4.121E-07	3.951E-08	2.747E-03
Cu	38	3.911E-07	3.104E-06	5.115E-07	3.556E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.087E-06	2.450E-05	1.293E-06	8.989E-02
Mn	85	8.130E-06	6.452E-05	6.187E-06	4.301E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.700E-07	2.143E-06	1.849E-07	1.285E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	5.953E-07	4.725E-06	7.812E-07	5.431E-02
NTXPM	998	1.038E-01	8.238E-01	7.901E-02	5.493E+03

FOR SOURCE # 14 TRKLOAD_PIT2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	4.530E-06	3.595E-05	6.078E-06	4.226E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	5.339E-06	4.237E-05	8.323E-07	5.786E-02
Cd	22	1.583E-07	1.256E-06	2.185E-07	1.519E-02
Cr	36	5.192E-08	4.121E-07	3.951E-08	2.747E-03
Cu	38	3.911E-07	3.104E-06	5.115E-07	3.556E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.087E-06	2.450E-05	1.293E-06	8.989E-02
Mn	85	8.130E-06	6.452E-05	6.187E-06	4.301E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.700E-07	2.143E-06	1.849E-07	1.285E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	5.953E-07	4.725E-06	7.812E-07	5.431E-02
NTXPM	998	1.038E-01	8.238E-01	7.901E-02	5.493E+03

FOR SOURCE # 15 TRKLOAD_PIT3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.850E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.744E-05	1.384E-04	2.340E-05	1.627E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.055E-05	1.631E-04	3.204E-06	2.228E-01
Cd	22	6.096E-07	4.838E-06	8.411E-07	5.848E-02
Cr	36	1.999E-07	1.587E-06	1.521E-07	1.057E-02
Cu	38	1.506E-06	1.195E-05	1.969E-06	1.369E-01
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.189E-05	9.437E-05	4.979E-06	3.462E-01
Mn	85	3.130E-05	2.484E-04	2.382E-05	1.656E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.039E-06	8.246E-06	7.118E-07	4.949E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.292E-06	1.819E-05	3.008E-06	2.091E-01
NTXPM	998	3.998E-01	3.173E+00	3.042E-01	2.115E+04

FOR SOURCE # 16 TRKLOAD_PIT4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.725E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.140E-05	1.698E-04	2.872E-05	1.997E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.523E-05	2.002E-04	3.932E-06	2.734E-01
Cd	22	7.482E-07	5.938E-06	1.032E-06	7.175E-02
Cr	36	2.453E-07	1.947E-06	1.867E-07	1.298E-02
Cu	38	1.848E-06	1.467E-05	2.417E-06	1.680E-01
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.459E-05	1.158E-04	6.110E-06	4.248E-01
Mn	85	3.842E-05	3.049E-04	2.923E-05	2.032E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.276E-06	1.013E-05	8.736E-07	6.074E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.813E-06	2.233E-05	3.691E-06	2.566E-01
NTXPM	998	4.906E-01	3.894E+00	3.733E-01	2.595E+04

FOR SOURCE # 17 TRKLOAD_PIT5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.520E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	6.885E-06	5.464E-05	9.239E-06	6.423E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	8.115E-06	6.440E-05	1.265E-06	8.795E-02
Cd	22	2.407E-07	1.910E-06	3.321E-07	2.309E-02
Cr	36	7.891E-08	6.263E-07	6.005E-08	4.175E-03
Cu	38	5.945E-07	4.718E-06	7.774E-07	5.405E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	4.693E-06	3.725E-05	1.966E-06	1.367E-01
Mn	85	1.236E-05	9.810E-05	9.404E-06	6.538E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	4.104E-07	3.257E-06	2.810E-07	1.954E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	9.049E-07	7.182E-06	1.187E-06	8.252E-02
NTXPM	998	1.578E-01	1.252E+00	1.201E-01	8.350E+03

FOR SOURCE # 18 TRKLOAD_PIT6
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.520E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	6.885E-06	5.464E-05	9.239E-06	6.423E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	8.115E-06	6.440E-05	1.265E-06	8.795E-02
Cd	22	2.407E-07	1.910E-06	3.321E-07	2.309E-02
Cr	36	7.891E-08	6.263E-07	6.005E-08	4.175E-03
Cu	38	5.945E-07	4.718E-06	7.774E-07	5.405E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	4.693E-06	3.725E-05	1.966E-06	1.367E-01
Mn	85	1.236E-05	9.810E-05	9.404E-06	6.538E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	4.104E-07	3.257E-06	2.810E-07	1.954E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	9.049E-07	7.182E-06	1.187E-06	8.252E-02
NTXPM	998	1.578E-01	1.252E+00	1.201E-01	8.350E+03

FOR SOURCE # 19 HAUL_1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.500E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	5.531E-06	4.390E-05	3.197E-06	2.223E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.027E-08	1.609E-07	1.172E-08	8.148E-04
Cd	22	1.995E-07	1.583E-06	1.153E-07	8.016E-03
Cr	36	3.244E-08	2.575E-07	1.875E-08	1.304E-03
Cu	38	4.639E-07	3.682E-06	2.681E-07	1.864E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	8.450E-07	6.706E-06	4.885E-07	3.396E-02
Mn	85	5.080E-06	4.032E-05	2.936E-06	2.041E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.476E-07	1.171E-06	8.532E-08	5.932E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	7.088E-07	5.625E-06	4.097E-07	2.848E-02
NTXPM	998	6.488E-02	5.149E-01	3.750E-02	2.607E+03

FOR SOURCE # 20 HAUL_2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.500E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	5.531E-06	4.390E-05	3.197E-06	2.223E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.027E-08	1.609E-07	1.172E-08	8.148E-04
Cd	22	1.995E-07	1.583E-06	1.153E-07	8.016E-03
Cr	36	3.244E-08	2.575E-07	1.875E-08	1.304E-03
Cu	38	4.639E-07	3.682E-06	2.681E-07	1.864E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	8.450E-07	6.706E-06	4.885E-07	3.396E-02
Mn	85	5.080E-06	4.032E-05	2.936E-06	2.041E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.476E-07	1.171E-06	8.532E-08	5.932E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	7.088E-07	5.625E-06	4.097E-07	2.848E-02
NTXPM	998	6.488E-02	5.149E-01	3.750E-02	2.607E+03

FOR SOURCE # 21 HAUL_3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 9.625E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.129E-05	1.690E-04	1.231E-05	8.558E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	7.806E-08	6.195E-07	4.512E-08	3.137E-03
Cd	22	7.681E-07	6.096E-06	4.440E-07	3.087E-02
Cr	36	1.249E-07	9.913E-07	7.219E-08	5.019E-03
Cu	38	1.786E-06	1.417E-05	1.032E-06	7.175E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.253E-06	2.582E-05	1.881E-06	1.308E-01
Mn	85	1.956E-05	1.552E-04	1.131E-05	7.863E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.682E-07	4.510E-06	3.285E-07	2.284E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.729E-06	2.166E-05	1.577E-06	1.096E-01
NTXPM	998	2.498E-01	1.983E+00	1.444E-01	1.004E+04

FOR SOURCE # 22 HAUL_4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.181E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.613E-05	2.074E-04	1.511E-05	1.051E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	9.580E-08	7.603E-07	5.538E-08	3.850E-03
Cd	22	9.426E-07	7.481E-06	5.449E-07	3.788E-02
Cr	36	1.533E-07	1.217E-06	8.860E-08	6.160E-03
Cu	38	2.192E-06	1.740E-05	1.267E-06	8.809E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.993E-06	3.169E-05	2.308E-06	1.605E-01
Mn	85	2.400E-05	1.905E-04	1.387E-05	9.643E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	6.974E-07	5.535E-06	4.031E-07	2.803E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.349E-06	2.658E-05	1.936E-06	1.346E-01
NTXPM	998	3.065E-01	2.433E+00	1.772E-01	1.232E+04

FOR SOURCE # 23 HAUL_5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.800E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.407E-06	6.672E-05	4.860E-06	3.379E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.082E-08	2.446E-07	1.781E-08	1.238E-03
Cd	22	3.032E-07	2.406E-06	1.753E-07	1.219E-02
Cr	36	4.931E-08	3.913E-07	2.850E-08	1.981E-03
Cu	38	7.051E-07	5.596E-06	4.076E-07	2.834E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.284E-06	1.019E-05	7.425E-07	5.162E-02
Mn	85	7.721E-06	6.128E-05	4.463E-06	3.103E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.243E-07	1.780E-06	1.297E-07	9.017E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.077E-06	8.548E-06	6.228E-07	4.330E-02
NTXPM	998	9.861E-02	7.826E-01	5.700E-02	3.963E+03

FOR SOURCE # 24 HAUL_6
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.800E+04 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.407E-06	6.672E-05	4.860E-06	3.379E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.082E-08	2.446E-07	1.781E-08	1.238E-03
Cd	22	3.032E-07	2.406E-06	1.753E-07	1.219E-02
Cr	36	4.931E-08	3.913E-07	2.850E-08	1.981E-03
Cu	38	7.051E-07	5.596E-06	4.076E-07	2.834E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.284E-06	1.019E-05	7.425E-07	5.162E-02
Mn	85	7.721E-06	6.128E-05	4.463E-06	3.103E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.243E-07	1.780E-06	1.297E-07	9.017E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.077E-06	8.548E-06	6.228E-07	4.330E-02
NTXPM	998	9.861E-02	7.826E-01	5.700E-02	3.963E+03

FOR SOURCE # 25 BAGHOUSE_1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.230E-06	6.532E-05	1.253E-05	8.711E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	9.700E-06	7.698E-05	1.477E-05	1.027E+00

Cd	22	2.877E-07	2.283E-06	4.379E-07	3.044E-02
Cr	36	9.433E-08	7.487E-07	1.436E-07	9.984E-03
Cu	38	1.421E-06	1.128E-05	1.082E-06	7.522E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.609E-06	4.452E-05	8.538E-06	5.936E-01
Mn	85	1.477E-05	1.172E-04	2.249E-05	1.564E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	9.810E-07	7.786E-06	7.466E-07	5.191E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.082E-06	8.587E-06	1.646E-06	1.144E-01
NTXPM	998	3.773E-01	2.994E+00	2.872E-01	1.997E+04

FOR SOURCE # 26 TRU-WST_1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.156E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	(lb/hr)	ANNUAL RATE (g/s)	(lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	8.597E-06	6.823E-05	1.023E-05	7.112E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.013E-05	8.040E-05	3.749E-08	2.606E-03
Cd	22	3.005E-07	2.385E-06	3.689E-07	2.565E-02
Cr	36	9.854E-08	7.821E-07	5.998E-08	4.170E-03
Cu	38	7.423E-07	5.891E-06	8.578E-07	5.964E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.860E-06	4.651E-05	1.563E-06	1.087E-01
Mn	85	1.543E-05	1.225E-04	9.393E-06	6.530E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.124E-07	4.067E-06	2.729E-07	1.897E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.130E-06	8.968E-06	1.311E-06	9.115E-02
NTXPM	998	1.094E-01	8.683E-01	1.200E-01	8.343E+03

FOR SOURCE # 27 TRU-WST_2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.331E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	(lb/hr)	ANNUAL RATE (g/s)	(lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.727E-05	1.371E-04	2.054E-05	1.428E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.035E-05	1.615E-04	7.531E-08	5.236E-03
Cd	22	6.037E-07	4.791E-06	7.410E-07	5.152E-02
Cr	36	1.979E-07	1.571E-06	1.205E-07	8.378E-03
Cu	38	1.491E-06	1.183E-05	1.723E-06	1.198E-01
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.177E-05	9.341E-05	3.139E-06	2.182E-01
Mn	85	3.100E-05	2.460E-04	1.887E-05	1.312E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.029E-06	8.167E-06	5.482E-07	3.811E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.270E-06	1.802E-05	2.633E-06	1.831E-01
NTXPM	998	2.198E-01	1.744E+00	2.410E-01	1.676E+04

FOR SOURCE # 28 TRU-WST_3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.371E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	(lb/hr)	ANNUAL RATE (g/s)	(lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	5.466E-06	4.338E-05	6.503E-06	4.521E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	6.443E-06	5.113E-05	2.384E-08	1.657E-03
Cd	22	1.911E-07	1.517E-06	2.346E-07	1.631E-02
Cr	36	6.265E-08	4.972E-07	3.814E-08	2.652E-03
Cu	38	4.720E-07	3.746E-06	5.454E-07	3.792E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00

HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.726E-06	2.957E-05	9.935E-07	6.907E-02
Mn	85	9.811E-06	7.787E-05	5.973E-06	4.153E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	3.258E-07	2.586E-06	1.735E-07	1.206E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	7.184E-07	5.702E-06	8.333E-07	5.793E-02
NTXPM	998	6.958E-02	5.522E-01	7.628E-02	5.303E+03

FOR SOURCE # 29 TRU-WST_4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.569E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.024E-05	8.127E-05	1.218E-05	8.468E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.207E-05	9.579E-05	4.466E-08	3.105E-03
Cd	22	3.580E-07	2.841E-06	4.394E-07	3.055E-02
Cr	36	1.174E-07	9.317E-07	7.145E-08	4.967E-03
Cu	38	8.842E-07	7.017E-06	1.022E-06	7.105E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	6.980E-06	5.540E-05	1.861E-06	1.294E-01
Mn	85	1.838E-05	1.459E-04	1.119E-05	7.780E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	6.103E-07	4.844E-06	3.251E-07	2.260E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.346E-06	1.068E-05	1.561E-06	1.085E-01
NTXPM	998	1.303E-01	1.034E+00	1.429E-01	9.935E+03

FOR SOURCE # 30 TRU-WST_5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 5.041E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.010E-05	1.595E-04	2.391E-05	1.662E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.369E-05	1.880E-04	8.765E-08	6.094E-03
Cd	22	7.026E-07	5.576E-06	8.625E-07	5.996E-02
Cr	36	2.304E-07	1.829E-06	1.402E-07	9.747E-03
Cu	38	1.735E-06	1.377E-05	2.005E-06	1.394E-01
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.370E-05	1.087E-04	3.653E-06	2.540E-01
Mn	85	3.608E-05	2.863E-04	2.196E-05	1.527E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.198E-06	9.508E-06	6.381E-07	4.436E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.642E-06	2.097E-05	3.064E-06	2.130E-01
NTXPM	998	2.558E-01	2.030E+00	2.805E-01	1.950E+04

FOR SOURCE # 31 DOZING_WASTE_1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.156E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.684E-05	1.337E-04	1.922E-06	1.336E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	6.171E-08	4.898E-07	7.045E-09	4.898E-04
Cd	22	6.073E-07	4.820E-06	6.932E-08	4.819E-03
Cr	36	9.874E-08	7.837E-07	1.127E-08	7.835E-04
Cu	38	1.412E-06	1.121E-05	1.612E-07	1.121E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.572E-06	2.041E-05	2.936E-07	2.041E-02
Mn	85	1.546E-05	1.227E-04	1.765E-06	1.227E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Ni	111	4.493E-07	3.566E-06	5.129E-08	3.566E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.158E-06	1.713E-05	2.463E-07	1.712E-02
NTXPM	998	1.975E-01	1.567E+00	2.254E-02	1.567E+03

FOR SOURCE # 32 DOZING WASTE_2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.331E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.382E-05	2.684E-04	3.860E-06	2.684E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.240E-07	9.841E-07	1.415E-08	9.838E-04
Cd	22	1.220E-06	9.683E-06	1.392E-07	9.678E-03
Cr	36	1.983E-07	1.574E-06	2.264E-08	1.574E-03
Cu	38	2.836E-06	2.251E-05	3.238E-07	2.251E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.167E-06	4.101E-05	5.898E-07	4.101E-02
Mn	85	3.106E-05	2.465E-04	3.546E-06	2.465E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	9.025E-07	7.163E-06	1.030E-07	7.161E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	4.334E-06	3.440E-05	4.947E-07	3.439E-02
NTXPM	998	3.967E-01	3.148E+00	4.528E-02	3.148E+03

FOR SOURCE # 33 DOZING WASTE_3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.371E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.070E-05	8.492E-05	1.222E-06	8.496E-02
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	3.924E-08	3.114E-07	4.479E-09	3.114E-04
Cd	22	3.861E-07	3.064E-06	4.408E-08	3.065E-03
Cr	36	6.278E-08	4.983E-07	7.167E-09	4.983E-04
Cu	38	8.978E-07	7.125E-06	1.025E-07	7.126E-03
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.636E-06	1.298E-05	1.867E-07	1.298E-02
Mn	85	9.832E-06	7.803E-05	1.122E-06	7.801E-02
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	2.857E-07	2.267E-06	3.261E-08	2.267E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	1.372E-06	1.089E-05	1.566E-07	1.089E-02
NTXPM	998	1.256E-01	9.968E-01	1.433E-02	9.963E+02

FOR SOURCE # 34 DOZING WASTE_4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.569E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.005E-05	1.591E-04	2.289E-06	1.591E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	7.351E-08	5.834E-07	8.392E-09	5.834E-04
Cd	22	7.234E-07	5.741E-06	8.258E-08	5.741E-03
Cr	36	1.176E-07	9.333E-07	1.343E-08	9.337E-04
Cu	38	1.682E-06	1.335E-05	1.920E-07	1.335E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	3.064E-06	2.432E-05	3.498E-07	2.432E-02
Mn	85	1.842E-05	1.462E-04	2.103E-06	1.462E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	5.352E-07	4.248E-06	6.109E-08	4.247E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.570E-06	2.040E-05	2.934E-07	2.040E-02
NTXPM	998	2.352E-01	1.867E+00	2.685E-02	1.867E+03

FOR SOURCE # 35 DOZING_WASTE_5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 5.041E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.936E-05	3.124E-04	4.493E-06	3.124E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.443E-07	1.145E-06	1.647E-08	1.145E-03
Cd	22	1.420E-06	1.127E-05	1.621E-07	1.127E-02
Cr	36	2.309E-07	1.833E-06	2.635E-08	1.832E-03
Cu	38	3.301E-06	2.620E-05	3.769E-07	2.620E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	6.014E-06	4.773E-05	6.865E-07	4.773E-02
Mn	85	3.615E-05	2.869E-04	4.127E-06	2.869E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.050E-06	8.333E-06	1.199E-07	8.336E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	5.044E-06	4.003E-05	5.758E-07	4.003E-02
NTXPM	998	4.617E-01	3.664E+00	5.271E-02	3.665E+03

FOR SOURCE # 36 WIND_EROSION1
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.156E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	2.830E-06	2.246E-05	2.906E-06	2.020E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.037E-08	8.230E-08	1.065E-08	7.404E-04
Cd	22	1.021E-07	8.103E-07	1.048E-07	7.286E-03
Cr	36	1.660E-08	1.317E-07	1.704E-08	1.185E-03
Cu	38	2.374E-07	1.884E-06	2.437E-07	1.694E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	4.324E-07	3.432E-06	4.440E-07	3.087E-02
Mn	85	2.599E-06	2.063E-05	2.669E-06	1.856E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	7.552E-08	5.994E-07	7.755E-08	5.392E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	3.627E-07	2.879E-06	3.724E-07	2.589E-02
NTXPM	998	3.320E-02	2.635E-01	3.409E-02	2.370E+03

FOR SOURCE # 37 WIND_EROSION2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 4.331E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	5.685E-06	4.512E-05	5.837E-06	4.058E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.084E-08	1.654E-07	2.140E-08	1.488E-03
Cd	22	2.050E-07	1.627E-06	2.105E-07	1.463E-02
Cr	36	3.334E-08	2.646E-07	3.423E-08	2.380E-03
Cu	38	4.768E-07	3.784E-06	4.895E-07	3.403E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	8.685E-07	6.893E-06	8.918E-07	6.200E-02
Mn	85	5.221E-06	4.144E-05	5.361E-06	3.727E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.517E-07	1.204E-06	1.558E-07	1.083E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	7.285E-07	5.782E-06	7.480E-07	5.200E-02

NTXPM	998	6.668E-02	5.292E-01	6.847E-02	4.760E+03

FOR SOURCE # 38 WIND_EROSION3
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.371E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	1.799E-06	1.428E-05	1.848E-06	1.285E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	6.596E-09	5.235E-08	6.773E-09	4.709E-04
Cd	22	6.490E-08	5.151E-07	6.664E-08	4.633E-03
Cr	36	1.055E-08	8.373E-08	1.084E-08	7.536E-04
Cu	38	1.509E-07	1.198E-06	1.550E-07	1.078E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	2.749E-07	2.182E-06	2.823E-07	1.963E-02
Mn	85	1.653E-06	1.312E-05	1.697E-06	1.180E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	4.802E-08	3.811E-07	4.931E-08	3.428E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	2.306E-07	1.830E-06	2.368E-07	1.646E-02
NTXPM	998	2.111E-02	1.675E-01	2.167E-02	1.507E+03

FOR SOURCE # 39 WIND_EROSION4
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 2.569E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	3.371E-06	2.675E-05	3.461E-06	2.406E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	1.236E-08	9.810E-08	1.269E-08	8.823E-04
Cd	22	1.216E-07	9.651E-07	1.249E-07	8.684E-03
Cr	36	1.977E-08	1.569E-07	2.030E-08	1.411E-03
Cu	38	2.827E-07	2.244E-06	2.903E-07	2.018E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	5.150E-07	4.087E-06	5.288E-07	3.676E-02
Mn	85	3.096E-06	2.457E-05	3.179E-06	2.210E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	8.996E-08	7.140E-07	9.237E-08	6.422E-03
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	4.320E-07	3.429E-06	4.436E-07	3.084E-02
NTXPM	998	3.954E-02	3.138E-01	4.060E-02	2.823E+03

FOR SOURCE # 40 WIND_EROSION5
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 5.041E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	6.616E-06	5.251E-05	6.794E-06	4.723E-01
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	2.425E-08	1.925E-07	2.490E-08	1.731E-03
Cd	22	2.387E-07	1.894E-06	2.451E-07	1.704E-02
Cr	36	3.881E-08	3.080E-07	3.985E-08	2.771E-03
Cu	38	5.549E-07	4.404E-06	5.698E-07	3.961E-02
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	1.011E-06	8.024E-06	1.038E-06	7.217E-02
Mn	85	6.077E-06	4.823E-05	6.240E-06	4.338E-01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	1.766E-07	1.402E-06	1.813E-07	1.260E-02
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	8.479E-07	6.729E-06	8.706E-07	6.053E-02
NTXPM	998	7.761E-02	6.160E-01	7.969E-02	5.540E+03

FOR SOURCE # 41 ORE_PAD1

OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 5.993E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	2.040E-01	1.619E+00	2.040E-01	1.418E+04
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 42 ORE_PAD2
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 3.188E+05 DEPOSITION ADJUST. FACTOR = 2.50000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	1.085E-01	8.611E-01	1.085E-01	7.543E+03
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 43 MERCURY_RETORT
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 44 ADSORPTION
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME POLLUTANT NUMBER 1-HOUR RATE ANNUAL RATE

		(g/s)	(lb/hr)	(g/s)	(lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	1.134E-03	9.000E-03	1.847E-03	1.284E+02
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 45 FURNACE
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	1.467E-05	1.164E-04	5.225E-07	3.633E-02
Cr	36	1.389E-07	1.102E-06	4.948E-09	3.440E-04
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

FOR SOURCE # 46 DIESEL TANK
OPERATING HOURS = 8760.00 SURFACE AREA (m2) = 1.000E+00 DEPOSITION ADJUST. FACTOR = 1.00000

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	83	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** INPUT FACILITY-WIDE EMISSION RATES ***

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR RATE (g/s)	1-HOUR RATE (lb/hr)	ANNUAL RATE (g/s)	ANNUAL RATE (lb/yr)
ACETA	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	10	5.533E-03	4.392E-02	2.980E-04	2.072E+01

BENZE	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	17	6.262E-03	4.970E-02	3.371E-05	2.344E+00
Cd	22	2.084E-04	1.654E-03	1.124E-05	7.814E-01
Cr	36	6.231E-05	4.945E-04	1.908E-06	1.326E-01
Cu	38	4.779E-04	3.793E-03	2.506E-05	1.742E+00
HCHO	70	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	79	3.136E-01	2.489E+00	3.143E-01	2.185E+04
Pb	83	3.655E-03	2.900E-02	6.020E-05	4.186E+00
Mn	85	9.736E-03	7.727E-02	2.980E-04	2.072E+01
Hg	87	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	111	3.229E-04	2.563E-03	8.865E-06	6.163E-01
NAPTH	110	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	152	7.264E-04	5.765E-03	3.828E-05	2.661E+00
NTXPM	998	1.239E+02	9.832E+02	3.806E+00	2.646E+05

*** INPUT POLLUTANT BACKGROUND CONCENTRATIONS (ug/m3) ****

POLLUTANT NAME	POLLUTANT NUMBER	1-HOUR BACKG.	ANNUAL BACKG.
ACETA	1	0.000E+00	0.000E+00
ACROL	3	0.000E+00	0.000E+00
As	10	0.000E+00	0.000E+00
BENZE	13	0.000E+00	0.000E+00
Be	17	0.000E+00	0.000E+00
Cd	22	0.000E+00	0.000E+00
Cr	36	0.000E+00	0.000E+00
Cu	38	0.000E+00	0.000E+00
HCHO	70	0.000E+00	0.000E+00
HCN	79	0.000E+00	0.000E+00
Pb	83	0.000E+00	0.000E+00
Mn	85	0.000E+00	0.000E+00
Hg	87	0.000E+00	0.000E+00
Ni	111	0.000E+00	0.000E+00
NAPTH	110	0.000E+00	0.000E+00
PAH	130	0.000E+00	0.000E+00
PROPL	134	0.000E+00	0.000E+00
Se	137	0.000E+00	0.000E+00
TOL	145	0.000E+00	0.000E+00
XYLEN	151	0.000E+00	0.000E+00
Zn	152	0.000E+00	0.000E+00
NTXPM	998	0.000E+00	0.000E+00

*** INPUT RECEPTOR DATA ***

RECEPTOR #	RECEPTOR NAME	X-COORD	Y-COORD	ELEVATION	POPULATION	GARDEN FRAC	SCREEN X/Q
1	RES_24-1	389400.00	3868050.00	2760.00	0	0.00000	0.000E+00
2	RES_20-1	392550.00	3868000.00	2650.00	0	0.00000	0.000E+00
3	RES_20-2	392600.00	3868000.00	2650.00	0	0.00000	0.000E+00
4	RES_13-1	390250.00	3868800.00	2760.00	0	0.00000	0.000E+00
5	RES_13-2	390300.00	3868750.00	2760.00	0	0.00000	0.000E+00
6	RES_13-3	390300.00	3868500.00	2760.00	0	0.00000	0.000E+00
7	RES_16-1	393500.00	3868200.00	2610.00	0	0.00000	0.000E+00
8	RES_16-2	393750.00	3868300.00	2600.00	0	0.00000	0.000E+00
9	RES_16-3	393800.00	3868450.00	2590.00	0	0.00000	0.000E+00
10	RES_12-1	389750.00	3870450.00	2820.00	0	0.00000	0.000E+00
11	RES_9-1	395050.00	3870600.00	2590.00	0	0.00000	0.000E+00
12	RES_5-1	392200.00	3872600.00	2840.00	0	0.00000	0.000E+00
13	RES_31-1	390800.00	3873450.00	2810.00	0	0.00000	0.000E+00
14	RES_31-2	390750.00	3873400.00	2810.00	0	0.00000	0.000E+00
15	RES_31-3	390700.00	3873400.00	2820.00	0	0.00000	0.000E+00
16	RES_31-4	390650.00	3873200.00	2820.00	0	0.00000	0.000E+00
17	RES_32-1	393500.00	3873700.00	2710.00	0	0.00000	0.000E+00
18	RES_32-2	392450.00	3873750.00	2740.00	0	0.00000	0.000E+00
19	RES_32-3	391950.00	3873950.00	2760.00	0	0.00000	0.000E+00
20	RES_32-4	391900.00	3873400.00	2780.00	0	0.00000	0.000E+00
21	PROP.001	389750.00	3871670.00	2840.00	0	0.00000	0.000E+00
22	PROP.002	389759.00	3871788.00	2850.00	0	0.00000	0.000E+00
23	PROP.003	389778.00	3871908.00	2850.00	0	0.00000	0.000E+00
24	PROP.004	389803.00	3872019.00	2850.00	0	0.00000	0.000E+00
25	PROP.005	389826.00	3872073.00	2850.00	0	0.00000	0.000E+00
26	PROP.006	389928.00	3872271.00	2850.00	0	0.00000	0.000E+00
27	PROP.007	390027.00	3872472.00	2850.00	0	0.00000	0.000E+00
28	PROP.008	390083.00	3872582.00	2835.00	0	0.00000	0.000E+00
29	PROP.009	390203.00	3872720.00	2830.00	0	0.00000	0.000E+00
30	PROP.010	390252.00	3872758.00	2830.00	0	0.00000	0.000E+00
31	PROP.011	390352.00	3872832.00	2820.00	0	0.00000	0.000E+00
32	PROP.012	390434.00	3872889.00	2820.00	0	0.00000	0.000E+00
33	PROP.013	390669.00	3872895.00	2820.00	0	0.00000	0.000E+00
34	PROP.014	390904.00	3872902.00	2820.00	0	0.00000	0.000E+00
35	PROP.015	391139.00	3872908.00	2820.00	0	0.00000	0.000E+00
36	PROP.016	391374.00	3872915.00	2820.00	0	0.00000	0.000E+00
37	PROP.017	391609.00	3872921.00	2810.00	0	0.00000	0.000E+00

38	PROP.018	391844.00	3872928.00	2790.00	0	0.00000	0.000E+00
39	PROP.019	391844.00	3872735.00	2850.00	0	0.00000	0.000E+00
40	PROP.020	391845.00	3872543.00	2900.00	0	0.00000	0.000E+00
41	PROP.021	391845.00	3872351.00	3000.00	0	0.00000	0.000E+00
42	PROP.022	391846.00	3872159.00	3175.00	0	0.00000	0.000E+00
43	PROP.023	392046.00	3872165.00	3100.00	0	0.00000	0.000E+00
44	PROP.024	392246.00	3872172.00	2975.00	0	0.00000	0.000E+00
45	PROP.025	392446.00	3872178.00	2825.00	0	0.00000	0.000E+00
46	PROP.026	392647.00	3872185.00	2860.00	0	0.00000	0.000E+00
47	PROP.027	392658.00	3871975.00	3090.00	0	0.00000	0.000E+00
48	PROP.028	392670.00	3871765.00	2900.00	0	0.00000	0.000E+00
49	PROP.029	392682.00	3871555.00	2925.00	0	0.00000	0.000E+00
50	PROP.030	392694.00	3871346.00	2950.00	0	0.00000	0.000E+00
51	PROP.031	392887.00	3871350.00	3000.00	0	0.00000	0.000E+00
52	PROP.032	393080.00	3871355.00	2950.00	0	0.00000	0.000E+00
53	PROP.033	393273.00	3871360.00	2875.00	0	0.00000	0.000E+00
54	PROP.034	393467.00	3871365.00	3025.00	0	0.00000	0.000E+00
55	PROP.035	393467.00	3871139.00	3000.00	0	0.00000	0.000E+00
56	PROP.036	393467.00	3870914.00	3000.00	0	0.00000	0.000E+00
57	PROP.037	393467.00	3870689.00	2760.00	0	0.00000	0.000E+00
58	PROP.038	393252.00	3870689.00	2830.00	0	0.00000	0.000E+00
59	PROP.039	393037.00	3870689.00	3020.00	0	0.00000	0.000E+00
60	PROP.040	392822.00	3870689.00	3110.00	0	0.00000	0.000E+00
61	PROP.041	392607.00	3870689.00	3440.00	0	0.00000	0.000E+00
62	PROP.042	392392.00	3870689.00	3500.00	0	0.00000	0.000E+00
63	PROP.043	392178.00	3870689.00	3120.00	0	0.00000	0.000E+00
64	PROP.044	392178.00	3870521.00	3020.00	0	0.00000	0.000E+00
65	PROP.045	392010.00	3870521.00	3180.00	0	0.00000	0.000E+00
66	PROP.046	391842.00	3870521.00	3120.00	0	0.00000	0.000E+00
67	PROP.047	391643.00	3870520.00	3060.00	0	0.00000	0.000E+00
68	PROP.048	391445.00	3870519.00	3030.00	0	0.00000	0.000E+00
69	PROP.049	391247.00	3870518.00	3180.00	0	0.00000	0.000E+00
70	PROP.050	391049.00	3870518.00	3120.00	0	0.00000	0.000E+00
71	PROP.051	391044.00	3870310.00	3300.00	0	0.00000	0.000E+00
72	PROP.052	391040.00	3870103.00	3140.00	0	0.00000	0.000E+00
73	PROP.053	391036.00	3869895.00	2980.00	0	0.00000	0.000E+00
74	PROP.054	391032.00	3869688.00	3120.00	0	0.00000	0.000E+00
75	PROP.055	390827.00	3869681.00	3000.00	0	0.00000	0.000E+00
76	PROP.056	390623.00	3869674.00	2920.00	0	0.00000	0.000E+00
77	PROP.057	390419.00	3869667.00	2910.00	0	0.00000	0.000E+00
78	PROP.058	390215.00	3869661.00	3000.00	0	0.00000	0.000E+00
79	PROP.059	390214.00	3869865.00	3020.00	0	0.00000	0.000E+00
80	PROP.060	390213.00	3870070.00	2930.00	0	0.00000	0.000E+00
81	PROP.061	390212.00	3870275.00	2920.00	0	0.00000	0.000E+00
82	PROP.062	390212.00	3870480.00	2880.00	0	0.00000	0.000E+00
83	PROP.063	390211.00	3870677.00	2870.00	0	0.00000	0.000E+00
84	PROP.064	390210.00	3870875.00	2860.00	0	0.00000	0.000E+00
85	PROP.065	390209.00	3871072.00	2860.00	0	0.00000	0.000E+00
86	PROP.066	390209.00	3871270.00	2870.00	0	0.00000	0.000E+00
87	PROP.067	390039.00	3871272.00	2840.00	0	0.00000	0.000E+00
88	PROP.068	389869.00	3871274.00	2840.00	0	0.00000	0.000E+00
89	PROP.069	389700.00	3871276.00	2840.00	0	0.00000	0.000E+00
90	PROP.070	389725.00	3871473.00	2840.00	0	0.00000	0.000E+00
91	100.0001	391600.00	3870100.00	2840.00	0	0.00000	0.000E+00
92	100.0002	391700.00	3870100.00	2840.00	0	0.00000	0.000E+00
93	100.0003	391800.00	3870100.00	2850.00	0	0.00000	0.000E+00
94	100.0004	391900.00	3870100.00	2900.00	0	0.00000	0.000E+00
95	100.0005	392000.00	3870100.00	2900.00	0	0.00000	0.000E+00
96	100.0006	392100.00	3870100.00	2870.00	0	0.00000	0.000E+00
97	100.0007	392200.00	3870100.00	2900.00	0	0.00000	0.000E+00
98	100.0008	392300.00	3870100.00	2790.00	0	0.00000	0.000E+00
99	100.0009	392400.00	3870100.00	2900.00	0	0.00000	0.000E+00
100	100.0010	392500.00	3870100.00	2880.00	0	0.00000	0.000E+00
101	100.0011	392600.00	3870100.00	2960.00	0	0.00000	0.000E+00
102	100.0012	392700.00	3870100.00	3070.00	0	0.00000	0.000E+00
103	100.0013	391600.00	3870200.00	2860.00	0	0.00000	0.000E+00
104	100.0014	391700.00	3870200.00	2880.00	0	0.00000	0.000E+00
105	100.0015	391800.00	3870200.00	2890.00	0	0.00000	0.000E+00
106	100.0016	391900.00	3870200.00	2930.00	0	0.00000	0.000E+00
107	100.0017	392000.00	3870200.00	2920.00	0	0.00000	0.000E+00
108	100.0018	392100.00	3870200.00	2910.00	0	0.00000	0.000E+00
109	100.0019	392200.00	3870200.00	2920.00	0	0.00000	0.000E+00
110	100.0020	392300.00	3870200.00	2940.00	0	0.00000	0.000E+00
111	100.0021	392400.00	3870200.00	2930.00	0	0.00000	0.000E+00
112	100.0022	392500.00	3870200.00	2950.00	0	0.00000	0.000E+00
113	100.0023	392600.00	3870200.00	2970.00	0	0.00000	0.000E+00
114	100.0024	392700.00	3870200.00	3120.00	0	0.00000	0.000E+00
115	100.0025	391600.00	3870300.00	2900.00	0	0.00000	0.000E+00
116	100.0026	391700.00	3870300.00	2920.00	0	0.00000	0.000E+00
117	100.0027	391800.00	3870300.00	2930.00	0	0.00000	0.000E+00
118	100.0028	391900.00	3870300.00	2960.00	0	0.00000	0.000E+00
119	100.0029	392000.00	3870300.00	3000.00	0	0.00000	0.000E+00
120	100.0030	392100.00	3870300.00	2960.00	0	0.00000	0.000E+00
121	100.0031	392200.00	3870300.00	2940.00	0	0.00000	0.000E+00
122	100.0032	392300.00	3870300.00	2980.00	0	0.00000	0.000E+00
123	100.0033	392400.00	3870300.00	2980.00	0	0.00000	0.000E+00
124	100.0034	392500.00	3870300.00	3020.00	0	0.00000	0.000E+00
125	100.0035	392600.00	3870300.00	3140.00	0	0.00000	0.000E+00
126	100.0036	392700.00	3870300.00	3170.00	0	0.00000	0.000E+00
127	100.0037	391600.00	3870400.00	2940.00	0	0.00000	0.000E+00
128	100.0038	391700.00	3870400.00	2950.00	0	0.00000	0.000E+00
129	100.0039	391800.00	3870400.00	2980.00	0	0.00000	0.000E+00
130	100.0040	391900.00	3870400.00	3060.00	0	0.00000	0.000E+00
131	100.0041	392000.00	3870400.00	3140.00	0	0.00000	0.000E+00
132	100.0042	392100.00	3870400.00	3020.00	0	0.00000	0.000E+00
133	100.0043	392200.00	3870400.00	2980.00	0	0.00000	0.000E+00
134	100.0044	392300.00	3870400.00	3040.00	0	0.00000	0.000E+00

135	100.0045	392400.00	3870400.00	3110.00	0	0.00000	0.000E+00
136	100.0046	392500.00	3870400.00	3280.00	0	0.00000	0.000E+00
137	100.0047	392600.00	3870400.00	3250.00	0	0.00000	0.000E+00
138	100.0048	392700.00	3870400.00	3260.00	0	0.00000	0.000E+00
139	100.0049	391600.00	3870500.00	3020.00	0	0.00000	0.000E+00
140	100.0050	391700.00	3870500.00	3040.00	0	0.00000	0.000E+00
141	100.0051	391800.00	3870500.00	3060.00	0	0.00000	0.000E+00
142	100.0052	391900.00	3870500.00	3200.00	0	0.00000	0.000E+00
143	100.0053	392000.00	3870500.00	3200.00	0	0.00000	0.000E+00
144	100.0054	392100.00	3870500.00	3060.00	0	0.00000	0.000E+00
145	100.0055	392200.00	3870500.00	3040.00	0	0.00000	0.000E+00
146	100.0056	392300.00	3870500.00	3140.00	0	0.00000	0.000E+00
147	100.0057	392400.00	3870500.00	3240.00	0	0.00000	0.000E+00
148	100.0058	392500.00	3870500.00	3320.00	0	0.00000	0.000E+00
149	100.0059	392600.00	3870500.00	3400.00	0	0.00000	0.000E+00
150	100.0060	392700.00	3870500.00	3400.00	0	0.00000	0.000E+00
151	100.0061	392200.00	3870600.00	3110.00	0	0.00000	0.000E+00
152	100.0062	392300.00	3870600.00	3280.00	0	0.00000	0.000E+00
153	100.0063	392400.00	3870600.00	3430.00	0	0.00000	0.000E+00
154	100.0064	392500.00	3870600.00	3130.00	0	0.00000	0.000E+00
155	100.0065	392600.00	3870600.00	3520.00	0	0.00000	0.000E+00
156	100.0066	392700.00	3870600.00	3390.00	0	0.00000	0.000E+00
157	250.0001	391000.00	3869500.00	3070.00	0	0.00000	0.000E+00
158	250.0002	391250.00	3869500.00	3140.00	0	0.00000	0.000E+00
159	250.0003	391500.00	3869500.00	2880.00	0	0.00000	0.000E+00
160	250.0004	391750.00	3869500.00	2730.00	0	0.00000	0.000E+00
161	250.0005	392000.00	3869500.00	2710.00	0	0.00000	0.000E+00
162	250.0006	392250.00	3869500.00	2700.00	0	0.00000	0.000E+00
163	250.0007	392500.00	3869500.00	2690.00	0	0.00000	0.000E+00
164	250.0008	392750.00	3869500.00	2660.00	0	0.00000	0.000E+00
165	250.0009	393000.00	3869500.00	2670.00	0	0.00000	0.000E+00
166	250.0010	393250.00	3869500.00	2650.00	0	0.00000	0.000E+00
167	250.0011	393500.00	3869500.00	2610.00	0	0.00000	0.000E+00
168	250.0012	391250.00	3869750.00	2890.00	0	0.00000	0.000E+00
169	250.0013	391500.00	3869750.00	2790.00	0	0.00000	0.000E+00
170	250.0014	391750.00	3869750.00	2760.00	0	0.00000	0.000E+00
171	250.0015	392000.00	3869750.00	2770.00	0	0.00000	0.000E+00
172	250.0016	392250.00	3869750.00	2760.00	0	0.00000	0.000E+00
173	250.0017	392500.00	3869750.00	2760.00	0	0.00000	0.000E+00
174	250.0018	392750.00	3869750.00	2800.00	0	0.00000	0.000E+00
175	250.0019	393000.00	3869750.00	2840.00	0	0.00000	0.000E+00
176	250.0020	393250.00	3869750.00	2720.00	0	0.00000	0.000E+00
177	250.0021	393500.00	3869750.00	2700.00	0	0.00000	0.000E+00
178	250.0022	391250.00	3870000.00	3010.00	0	0.00000	0.000E+00
179	250.0023	391500.00	3870000.00	2880.00	0	0.00000	0.000E+00
180	250.0024	391750.00	3870000.00	2810.00	0	0.00000	0.000E+00
181	250.0025	392000.00	3870000.00	2860.00	0	0.00000	0.000E+00
182	250.0026	392250.00	3870000.00	2940.00	0	0.00000	0.000E+00
183	250.0027	392500.00	3870000.00	2850.00	0	0.00000	0.000E+00
184	250.0028	392750.00	3870000.00	3040.00	0	0.00000	0.000E+00
185	250.0029	393000.00	3870000.00	2980.00	0	0.00000	0.000E+00
186	250.0030	393250.00	3870000.00	2860.00	0	0.00000	0.000E+00
187	250.0031	393500.00	3870000.00	2760.00	0	0.00000	0.000E+00
188	250.0032	391250.00	3870250.00	3140.00	0	0.00000	0.000E+00
189	250.0033	391500.00	3870250.00	2910.00	0	0.00000	0.000E+00
190	250.0034	391750.00	3870250.00	2910.00	0	0.00000	0.000E+00
191	250.0035	392000.00	3870250.00	2960.00	0	0.00000	0.000E+00
192	250.0036	392250.00	3870250.00	2940.00	0	0.00000	0.000E+00
193	250.0037	392500.00	3870250.00	2990.00	0	0.00000	0.000E+00
194	250.0038	392750.00	3870250.00	3180.00	0	0.00000	0.000E+00
195	250.0039	393000.00	3870250.00	2980.00	0	0.00000	0.000E+00
196	250.0040	393250.00	3870250.00	3000.00	0	0.00000	0.000E+00
197	250.0041	393500.00	3870250.00	2840.00	0	0.00000	0.000E+00
198	250.0042	391250.00	3870500.00	3160.00	0	0.00000	0.000E+00
199	250.0043	391500.00	3870500.00	3000.00	0	0.00000	0.000E+00
200	250.0044	391750.00	3870500.00	3040.00	0	0.00000	0.000E+00
201	250.0045	392250.00	3870500.00	3100.00	0	0.00000	0.000E+00
202	250.0046	392750.00	3870500.00	3380.00	0	0.00000	0.000E+00
203	250.0047	393000.00	3870500.00	3100.00	0	0.00000	0.000E+00
204	250.0048	393250.00	3870500.00	2880.00	0	0.00000	0.000E+00
205	250.0049	393500.00	3870500.00	2820.00	0	0.00000	0.000E+00
206	250.0050	393500.00	3870750.00	2840.00	0	0.00000	0.000E+00
207	250.0051	393500.00	3871000.00	3050.00	0	0.00000	0.000E+00
208	500.0001	386000.00	3867500.00	2840.00	0	0.00000	0.000E+00
209	500.0002	386500.00	3867500.00	2840.00	0	0.00000	0.000E+00
210	500.0003	387000.00	3867500.00	2830.00	0	0.00000	0.000E+00
211	500.0004	387500.00	3867500.00	2810.00	0	0.00000	0.000E+00
212	500.0005	388000.00	3867500.00	2800.00	0	0.00000	0.000E+00
213	500.0006	388500.00	3867500.00	2790.00	0	0.00000	0.000E+00
214	500.0007	389000.00	3867500.00	2770.00	0	0.00000	0.000E+00
215	500.0008	389500.00	3867500.00	2750.00	0	0.00000	0.000E+00
216	500.0009	390000.00	3867500.00	2740.00	0	0.00000	0.000E+00
217	500.0010	390500.00	3867500.00	2730.00	0	0.00000	0.000E+00
218	500.0011	391000.00	3867500.00	2710.00	0	0.00000	0.000E+00
219	500.0012	391500.00	3867500.00	2690.00	0	0.00000	0.000E+00
220	500.0013	392000.00	3867500.00	2670.00	0	0.00000	0.000E+00
221	500.0014	392500.00	3867500.00	2650.00	0	0.00000	0.000E+00
222	500.0015	393000.00	3867500.00	2630.00	0	0.00000	0.000E+00
223	500.0016	393500.00	3867500.00	2600.00	0	0.00000	0.000E+00
224	500.0017	394000.00	3867500.00	2590.00	0	0.00000	0.000E+00
225	500.0018	394500.00	3867500.00	2580.00	0	0.00000	0.000E+00
226	500.0019	395000.00	3867500.00	2560.00	0	0.00000	0.000E+00
227	500.0020	386000.00	3868000.00	2860.00	0	0.00000	0.000E+00
228	500.0021	386500.00	3868000.00	2860.00	0	0.00000	0.000E+00
229	500.0022	387000.00	3868000.00	2860.00	0	0.00000	0.000E+00
230	500.0023	387500.00	3868000.00	2840.00	0	0.00000	0.000E+00
231	500.0024	388000.00	3868000.00	2820.00	0	0.00000	0.000E+00

232	500.0025	388500.00	3868000.00	2800.00	0	0.00000	0.000E+00
233	500.0026	389000.00	3868000.00	2780.00	0	0.00000	0.000E+00
234	500.0027	389500.00	3868000.00	2770.00	0	0.00000	0.000E+00
235	500.0028	390000.00	3868000.00	2750.00	0	0.00000	0.000E+00
236	500.0029	390500.00	3868000.00	2740.00	0	0.00000	0.000E+00
237	500.0030	391000.00	3868000.00	2720.00	0	0.00000	0.000E+00
238	500.0031	391500.00	3868000.00	2700.00	0	0.00000	0.000E+00
239	500.0032	392000.00	3868000.00	2680.00	0	0.00000	0.000E+00
240	500.0033	392500.00	3868000.00	2660.00	0	0.00000	0.000E+00
241	500.0034	393000.00	3868000.00	2630.00	0	0.00000	0.000E+00
242	500.0035	393500.00	3868000.00	2610.00	0	0.00000	0.000E+00
243	500.0036	394000.00	3868000.00	2590.00	0	0.00000	0.000E+00
244	500.0037	394500.00	3868000.00	2580.00	0	0.00000	0.000E+00
245	500.0038	395000.00	3868000.00	2560.00	0	0.00000	0.000E+00
246	500.0039	386000.00	3868500.00	2880.00	0	0.00000	0.000E+00
247	500.0040	386500.00	3868500.00	2880.00	0	0.00000	0.000E+00
248	500.0041	387000.00	3868500.00	2870.00	0	0.00000	0.000E+00
249	500.0042	387500.00	3868500.00	2860.00	0	0.00000	0.000E+00
250	500.0043	388000.00	3868500.00	2850.00	0	0.00000	0.000E+00
251	500.0044	388500.00	3868500.00	2820.00	0	0.00000	0.000E+00
252	500.0045	389000.00	3868500.00	2800.00	0	0.00000	0.000E+00
253	500.0046	389500.00	3868500.00	2780.00	0	0.00000	0.000E+00
254	500.0047	390000.00	3868500.00	2770.00	0	0.00000	0.000E+00
255	500.0048	390500.00	3868500.00	2740.00	0	0.00000	0.000E+00
256	500.0049	391000.00	3868500.00	2730.00	0	0.00000	0.000E+00
257	500.0050	391500.00	3868500.00	2710.00	0	0.00000	0.000E+00
258	500.0051	392000.00	3868500.00	2680.00	0	0.00000	0.000E+00
259	500.0052	392500.00	3868500.00	2660.00	0	0.00000	0.000E+00
260	500.0053	393000.00	3868500.00	2620.00	0	0.00000	0.000E+00
261	500.0054	393500.00	3868500.00	2600.00	0	0.00000	0.000E+00
262	500.0055	394000.00	3868500.00	2590.00	0	0.00000	0.000E+00
263	500.0056	394500.00	3868500.00	2580.00	0	0.00000	0.000E+00
264	500.0057	395000.00	3868500.00	2565.00	0	0.00000	0.000E+00
265	500.0058	386000.00	3869000.00	2910.00	0	0.00000	0.000E+00
266	500.0059	386500.00	3869000.00	2900.00	0	0.00000	0.000E+00
267	500.0060	387000.00	3869000.00	2890.00	0	0.00000	0.000E+00
268	500.0061	387500.00	3869000.00	2880.00	0	0.00000	0.000E+00
269	500.0062	388000.00	3869000.00	2865.00	0	0.00000	0.000E+00
270	500.0063	388500.00	3869000.00	2840.00	0	0.00000	0.000E+00
271	500.0064	389000.00	3869000.00	2820.00	0	0.00000	0.000E+00
272	500.0065	389500.00	3869000.00	2800.00	0	0.00000	0.000E+00
273	500.0066	390000.00	3869000.00	2820.00	0	0.00000	0.000E+00
274	500.0067	390500.00	3869000.00	2960.00	0	0.00000	0.000E+00
275	500.0068	391000.00	3869000.00	2880.00	0	0.00000	0.000E+00
276	500.0069	391500.00	3869000.00	2720.00	0	0.00000	0.000E+00
277	500.0070	392000.00	3869000.00	2680.00	0	0.00000	0.000E+00
278	500.0071	392500.00	3869000.00	2650.00	0	0.00000	0.000E+00
279	500.0072	393000.00	3869000.00	2620.00	0	0.00000	0.000E+00
280	500.0073	393500.00	3869000.00	2600.00	0	0.00000	0.000E+00
281	500.0074	394000.00	3869000.00	2590.00	0	0.00000	0.000E+00
282	500.0075	394500.00	3869000.00	2580.00	0	0.00000	0.000E+00
283	500.0076	395000.00	3869000.00	2570.00	0	0.00000	0.000E+00
284	500.0077	386000.00	3869500.00	2920.00	0	0.00000	0.000E+00
285	500.0078	386500.00	3869500.00	2920.00	0	0.00000	0.000E+00
286	500.0079	387000.00	3869500.00	2910.00	0	0.00000	0.000E+00
287	500.0080	387500.00	3869500.00	2890.00	0	0.00000	0.000E+00
288	500.0081	388000.00	3869500.00	2880.00	0	0.00000	0.000E+00
289	500.0082	388500.00	3869500.00	2860.00	0	0.00000	0.000E+00
290	500.0083	389000.00	3869500.00	2840.00	0	0.00000	0.000E+00
291	500.0084	389500.00	3869500.00	2800.00	0	0.00000	0.000E+00
292	500.0085	390000.00	3869500.00	3340.00	0	0.00000	0.000E+00
293	500.0086	390500.00	3869500.00	2850.00	0	0.00000	0.000E+00
294	500.0087	394000.00	3869500.00	2590.00	0	0.00000	0.000E+00
295	500.0088	394500.00	3869500.00	2580.00	0	0.00000	0.000E+00
296	500.0089	395000.00	3869500.00	2570.00	0	0.00000	0.000E+00
297	500.0090	386000.00	3870000.00	2940.00	0	0.00000	0.000E+00
298	500.0091	386500.00	3870000.00	2940.00	0	0.00000	0.000E+00
299	500.0092	387000.00	3870000.00	2930.00	0	0.00000	0.000E+00
300	500.0093	387500.00	3870000.00	2900.00	0	0.00000	0.000E+00
301	500.0094	388000.00	3870000.00	2880.00	0	0.00000	0.000E+00
302	500.0095	388500.00	3870000.00	2860.00	0	0.00000	0.000E+00
303	500.0096	389000.00	3870000.00	2840.00	0	0.00000	0.000E+00
304	500.0097	389500.00	3870000.00	2820.00	0	0.00000	0.000E+00
305	500.0098	390000.00	3870000.00	2900.00	0	0.00000	0.000E+00
306	500.0099	394000.00	3870000.00	2600.00	0	0.00000	0.000E+00
307	500.0100	394500.00	3870000.00	2590.00	0	0.00000	0.000E+00
308	500.0101	395000.00	3870000.00	2570.00	0	0.00000	0.000E+00
309	500.0102	386000.00	3870500.00	2970.00	0	0.00000	0.000E+00
310	500.0103	386500.00	3870500.00	2960.00	0	0.00000	0.000E+00
311	500.0104	387000.00	3870500.00	2950.00	0	0.00000	0.000E+00
312	500.0105	387500.00	3870500.00	2910.00	0	0.00000	0.000E+00
313	500.0106	388000.00	3870500.00	2880.00	0	0.00000	0.000E+00
314	500.0107	388500.00	3870500.00	2860.00	0	0.00000	0.000E+00
315	500.0108	389000.00	3870500.00	2840.00	0	0.00000	0.000E+00
316	500.0109	389500.00	3870500.00	2820.00	0	0.00000	0.000E+00
317	500.0110	390000.00	3870500.00	2850.00	0	0.00000	0.000E+00
318	500.0111	394000.00	3870500.00	2720.00	0	0.00000	0.000E+00
319	500.0112	394500.00	3870500.00	2670.00	0	0.00000	0.000E+00
320	500.0113	395000.00	3870500.00	2590.00	0	0.00000	0.000E+00
321	500.0114	386000.00	3871000.00	2990.00	0	0.00000	0.000E+00
322	500.0115	386500.00	3871000.00	2970.00	0	0.00000	0.000E+00
323	500.0116	387000.00	3871000.00	2940.00	0	0.00000	0.000E+00
324	500.0117	387500.00	3871000.00	2910.00	0	0.00000	0.000E+00
325	500.0118	388000.00	3871000.00	2890.00	0	0.00000	0.000E+00
326	500.0119	388500.00	3871000.00	2870.00	0	0.00000	0.000E+00
327	500.0120	389000.00	3871000.00	2820.00	0	0.00000	0.000E+00
328	500.0121	389500.00	3871000.00	2840.00	0	0.00000	0.000E+00

9	500.0122	390000.00	3871000.00	2840.00	0	0.00000	0.000E+00
0	500.0123	394000.00	3871000.00	2640.00	0	0.00000	0.000E+00
1	500.0124	394500.00	3871000.00	2605.00	0	0.00000	0.000E+00
2	500.0125	395000.00	3871000.00	2590.00	0	0.00000	0.000E+00
3	500.0126	386000.00	3871500.00	3000.00	0	0.00000	0.000E+00
4	500.0127	386500.00	3871500.00	2980.00	0	0.00000	0.000E+00
5	500.0128	387000.00	3871500.00	2960.00	0	0.00000	0.000E+00
6	500.0129	387500.00	3871500.00	2930.00	0	0.00000	0.000E+00
7	500.0130	388000.00	3871500.00	2910.00	0	0.00000	0.000E+00
8	500.0131	388500.00	3871500.00	2880.00	0	0.00000	0.000E+00
9	500.0132	389000.00	3871500.00	2860.00	0	0.00000	0.000E+00
0	500.0133	389500.00	3871500.00	2840.00	0	0.00000	0.000E+00
1	500.0134	393000.00	3871500.00	2940.00	0	0.00000	0.000E+00
2	500.0135	393500.00	3871500.00	2740.00	0	0.00000	0.000E+00
3	500.0136	394000.00	3871500.00	2640.00	0	0.00000	0.000E+00
4	500.0137	394500.00	3871500.00	2610.00	0	0.00000	0.000E+00
5	500.0138	395000.00	3871500.00	2600.00	0	0.00000	0.000E+00
6	500.0139	386000.00	3872000.00	3020.00	0	0.00000	0.000E+00
7	500.0140	386500.00	3872000.00	3000.00	0	0.00000	0.000E+00
8	500.0141	387000.00	3872000.00	2970.00	0	0.00000	0.000E+00
9	500.0142	387500.00	3872000.00	2940.00	0	0.00000	0.000E+00
0	500.0143	388000.00	3872000.00	2920.00	0	0.00000	0.000E+00
1	500.0144	388500.00	3872000.00	2900.00	0	0.00000	0.000E+00
2	500.0145	389000.00	3872000.00	2880.00	0	0.00000	0.000E+00
3	500.0146	389500.00	3872000.00	2860.00	0	0.00000	0.000E+00
4	500.0147	393000.00	3872000.00	2760.00	0	0.00000	0.000E+00
5	500.0148	393500.00	3872000.00	2690.00	0	0.00000	0.000E+00
6	500.0149	394000.00	3872000.00	2650.00	0	0.00000	0.000E+00
7	500.0150	394500.00	3872000.00	2630.00	0	0.00000	0.000E+00
8	500.0151	395000.00	3872000.00	2610.00	0	0.00000	0.000E+00
9	500.0152	386000.00	3872500.00	3040.00	0	0.00000	0.000E+00
0	500.0153	386500.00	3872500.00	3020.00	0	0.00000	0.000E+00
1	500.0154	387000.00	3872500.00	2990.00	0	0.00000	0.000E+00
2	500.0155	387500.00	3872500.00	2960.00	0	0.00000	0.000E+00
3	500.0156	388000.00	3872500.00	2940.00	0	0.00000	0.000E+00
4	500.0157	388500.00	3872500.00	2910.00	0	0.00000	0.000E+00
5	500.0158	389000.00	3872500.00	2880.00	0	0.00000	0.000E+00
6	500.0159	389500.00	3872500.00	2860.00	0	0.00000	0.000E+00
7	500.0160	390000.00	3872500.00	2870.00	0	0.00000	0.000E+00
8	500.0161	392000.00	3872500.00	2920.00	0	0.00000	0.000E+00
9	500.0162	392500.00	3872500.00	2810.00	0	0.00000	0.000E+00
70	500.0163	393000.00	3872500.00	2720.00	0	0.00000	0.000E+00
71	500.0164	393500.00	3872500.00	2680.00	0	0.00000	0.000E+00
72	500.0165	394000.00	3872500.00	2660.00	0	0.00000	0.000E+00
73	500.0166	394500.00	3872500.00	2640.00	0	0.00000	0.000E+00
74	500.0167	395000.00	3872500.00	2610.00	0	0.00000	0.000E+00
75	500.0168	386000.00	3873000.00	3060.00	0	0.00000	0.000E+00
76	500.0169	386500.00	3873000.00	3040.00	0	0.00000	0.000E+00
77	500.0170	387000.00	3873000.00	3010.00	0	0.00000	0.000E+00
78	500.0171	387500.00	3873000.00	2980.00	0	0.00000	0.000E+00
79	500.0172	388000.00	3873000.00	2950.00	0	0.00000	0.000E+00
80	500.0173	388500.00	3873000.00	2920.00	0	0.00000	0.000E+00
81	500.0174	389000.00	3873000.00	2900.00	0	0.00000	0.000E+00
82	500.0175	389500.00	3873000.00	2870.00	0	0.00000	0.000E+00
83	500.0176	390000.00	3873000.00	2845.00	0	0.00000	0.000E+00
84	500.0177	390500.00	3873000.00	2820.00	0	0.00000	0.000E+00
85	500.0178	391000.00	3873000.00	2810.00	0	0.00000	0.000E+00
86	500.0179	391500.00	3873000.00	2800.00	0	0.00000	0.000E+00
87	500.0180	392000.00	3873000.00	2760.00	0	0.00000	0.000E+00
88	500.0181	392500.00	3873000.00	2740.00	0	0.00000	0.000E+00
89	500.0182	393000.00	3873000.00	2710.00	0	0.00000	0.000E+00
90	500.0183	393500.00	3873000.00	2680.00	0	0.00000	0.000E+00
91	500.0184	394000.00	3873000.00	2660.00	0	0.00000	0.000E+00
92	500.0185	394500.00	3873000.00	2640.00	0	0.00000	0.000E+00
93	500.0186	395000.00	3873000.00	2620.00	0	0.00000	0.000E+00
94	500.0187	386000.00	3873500.00	3080.00	0	0.00000	0.000E+00
95	500.0188	386500.00	3873500.00	3050.00	0	0.00000	0.000E+00
96	500.0189	387000.00	3873500.00	3020.00	0	0.00000	0.000E+00
97	500.0190	387500.00	3873500.00	2990.00	0	0.00000	0.000E+00
98	500.0191	388000.00	3873500.00	2960.00	0	0.00000	0.000E+00
99	500.0192	388500.00	3873500.00	2930.00	0	0.00000	0.000E+00
00	500.0193	389000.00	3873500.00	2900.00	0	0.00000	0.000E+00
01	500.0194	389500.00	3873500.00	2880.00	0	0.00000	0.000E+00
02	500.0195	390000.00	3873500.00	2850.00	0	0.00000	0.000E+00
03	500.0196	390500.00	3873500.00	2830.00	0	0.00000	0.000E+00
04	500.0197	391000.00	3873500.00	2800.00	0	0.00000	0.000E+00
05	500.0198	391500.00	3873500.00	2780.00	0	0.00000	0.000E+00
06	500.0199	392000.00	3873500.00	2750.00	0	0.00000	0.000E+00
07	500.0200	392500.00	3873500.00	2760.00	0	0.00000	0.000E+00
08	500.0201	393000.00	3873500.00	2720.00	0	0.00000	0.000E+00
09	500.0202	393500.00	3873500.00	2680.00	0	0.00000	0.000E+00
10	500.0203	394000.00	3873500.00	2700.00	0	0.00000	0.000E+00
11	500.0204	394500.00	3873500.00	2640.00	0	0.00000	0.000E+00
12	500.0205	395000.00	3873500.00	2620.00	0	0.00000	0.000E+00
13	500.0206	388000.00	3874000.00	2980.00	0	0.00000	0.000E+00
414	500.0207	388000.00	3874500.00	2980.00	0	0.00000	0.000E+00
415	500.0208	388000.00	3875000.00	2990.00	0	0.00000	0.000E+00
416	500.0209	388500.00	3874000.00	2940.00	0	0.00000	0.000E+00
417	500.0210	388500.00	3874500.00	2950.00	0	0.00000	0.000E+00
418	500.0211	388500.00	3875000.00	2960.00	0	0.00000	0.000E+00
419	500.0212	389000.00	3874000.00	2910.00	0	0.00000	0.000E+00
420	500.0213	389000.00	3874500.00	2920.00	0	0.00000	0.000E+00
421	500.0214	389000.00	3875000.00	2920.00	0	0.00000	0.000E+00
422	500.0215	389500.00	3874000.00	2880.00	0	0.00000	0.000E+00
423	500.0216	389500.00	3874500.00	2890.00	0	0.00000	0.000E+00
424	500.0217	389500.00	3875000.00	2900.00	0	0.00000	0.000E+00
425	500.0218	390000.00	3874000.00	2860.00	0	0.00000	0.000E+00

426	500.0219	390000.00	3874500.00	2860.00	0	0.00000	0.000E+00
427	500.0220	390000.00	3875000.00	2865.00	0	0.00000	0.000E+00
428	500.0221	390500.00	3874000.00	2830.00	0	0.00000	0.000E+00
429	500.0222	390500.00	3874500.00	2840.00	0	0.00000	0.000E+00
430	500.0223	390500.00	3875000.00	2840.00	0	0.00000	0.000E+00
431	500.0224	391000.00	3874000.00	2800.00	0	0.00000	0.000E+00
432	500.0225	391000.00	3874500.00	2810.00	0	0.00000	0.000E+00
433	500.0226	391000.00	3875000.00	2810.00	0	0.00000	0.000E+00
434	500.0227	391500.00	3874000.00	2780.00	0	0.00000	0.000E+00
435	500.0228	391500.00	3874500.00	2780.00	0	0.00000	0.000E+00
436	500.0229	391500.00	3875000.00	2780.00	0	0.00000	0.000E+00
437	500.0230	392000.00	3874000.00	2770.00	0	0.00000	0.000E+00
438	500.0231	392000.00	3874500.00	2760.00	0	0.00000	0.000E+00
439	500.0232	392000.00	3875000.00	2760.00	0	0.00000	0.000E+00
440	500.0233	392500.00	3874000.00	2760.00	0	0.00000	0.000E+00
441	500.0234	392500.00	3874500.00	2780.00	0	0.00000	0.000E+00
442	500.0235	392500.00	3875000.00	2740.00	0	0.00000	0.000E+00
443	500.0236	393000.00	3874000.00	2900.00	0	0.00000	0.000E+00
444	500.0237	393000.00	3874500.00	2900.00	0	0.00000	0.000E+00
445	500.0238	393000.00	3875000.00	2730.00	0	0.00000	0.000E+00
446	500.0239	393500.00	3874000.00	2800.00	0	0.00000	0.000E+00
447	500.0240	393500.00	3874500.00	2700.00	0	0.00000	0.000E+00
448	500.0241	393500.00	3875000.00	2700.00	0	0.00000	0.000E+00
449	500.0242	394000.00	3874000.00	2650.00	0	0.00000	0.000E+00
450	500.0243	394000.00	3874500.00	2660.00	0	0.00000	0.000E+00
451	500.0244	394000.00	3875000.00	2680.00	0	0.00000	0.000E+00

*** PATHWAY-SPECIFIC DATA ***

*** RISK LEVELS ***

Significant risk level	1.00E-06	
Zone of impact risk level	1.00E-07	
Significant hazard index for acute exposure	0.50	
Significant hazard index for chronic exposure	0.50	
*** INHALATION PATHWAY ***		
Respiration rate (RR) (m3/d)	20.0	
Average body weight (ABW) (kg)	70.0	
*** MULTIPATHWAY POLLUTANTS ***		
Number of multipathway pollutants	27	

Symbol and identification number			
	- Arsenic	As	10
	- Beryllium	Be	17
	- Cadmium	Cd	22
	- Chlorobenzene	CBZ	29
	- Chromium (hex.)	Cr	36
	- Dioxins/Dibenzofuran	TCDD	55
	- 2-Chlorophenol	CPHE2	33
	- p-Dichlorobenzene	PDCB	48
	- Hexachlorobenzene	HCB	74
	- Hexachlorocyclohexan	HCHEX	75
	- Lead	Pb	83
	- Mercury	Hg	87
	- NNitrosodiethylamine	NNETH	101
	- NNitrosodimethylamin	NNMET	102
	- NNitrosodiphenylamin	PNPHE	105
	- NNitrosodinbutylamin	NNBUT	103
	- NNitrosodinpropylami	NNDPP	104
	- NNitromethyethylamin	NNMEL	106
	- NNitrosomorpholine	NNMPH	107
	- NNitrosopiperidine	NNPRD	108
	- NNitrosopyrrolidine	NNPLD	109
	- Naphthalene	NAPTH	110
	- PAH	PAH	130
	- Polychlor. biphenyls	PCB	129
	- Pentachlorophenol	PENTA	155
	- 2,4,6Trichlorophenol	TC246	147
	- 2,4,5Trichlorophenol	TC245	157

*** SOIL ***

Vertical rate of deposition (Dep_rate) (m/s)		
	- Arsenic	0.02
	- Beryllium	0.02
	- Cadmium	0.02
	- Chlorobenzene	0.02
	- Chromium (hex.)	0.02
	- Dioxins/Dibenzofuran	0.02
	- 2-Chlorophenol	0.02
	- p-Dichlorobenzene	0.02
	- Hexachlorobenzene	0.02
	- Hexachlorocyclohexan	0.02
	- Lead	0.02
	- Mercury	0.02
	- NNitrosodiethylamine	0.02
	- NNitrosodimethylamin	0.02
	- NNitrosodiphenylamin	0.02
	- NNitrosodinbutylamin	0.02
	- NNitrosodinpropylami	0.02
	- NNitromethyethylamin	0.02
	- NNitrosomorpholine	0.02
	- NNitrosopiperidine	0.02
	- NNitrosopyrrolidine	0.02
	- Naphthalene	0.02
	- PAH	0.02

	- Polychlor. biphenyls	0.02
	- Pentachlorophenol	0.02
	- 2,4,6Trichlorophenol	0.02
	- 2,4,5Trichlorophenol	0.02
Beginning of evaluation period (To) (d)		0.0
End of evaluation period (Tf) (d)		25550.0
Soil mixing depth for human ingestion (SD) (m)		0.0100
Soil bulk density (BD) (kg/m3)		1333.0
Chemical half-life in soil (t1/2)(d)	- Arsenic	1.00E+08
	- Beryllium	1.00E+08
	- Cadmium	1.00E+08
	- Chlorobenzene	1.50E+02
	- Chromium (hex.)	1.00E+08
	- Dioxins/Dibenzofuran	4.38E+03
	- 2-Chlorophenol	7.00E+01
	- p-Dichlorobenzene	1.80E+02
	- Hexachlorobenzene	2.09E+03
	- Hexachlorocyclohexan	1.70E+02
	- Lead	1.00E+08
	- Mercury	1.00E+08
	- NNitrosodiethylamine	1.80E+02
	- NNitrosodimethylamin	1.80E+02
	- NNitrosodiphenylamin	1.80E+02
	- NNitrosodinbutylamin	1.80E+02
	- NNitrosodinpropylami	1.80E+02
	- NNitromethyethylamin	1.80E+02
	- NNitrosomorpholine	1.80E+02
	- NNitrosopiperidine	1.80E+02
	- NNitrosopyrrolidine	1.80E+02
	- Naphthalene	4.80E+02
	- PAH	4.80E+02
	- Polychlor. biphenyls	3.60E+03
	- Pentachlorophenol	1.78E+02
	- 2,4,6Trichlorophenol	7.00E+01
	- 2,4,5Trichlorophenol	6.90E+02
*** WATER ***		
Location (receptor #) of drinking water source		-1
Site-specific water surface area (SA) (m2)		-1.0
Site-specific water volume (WV) (kg)		-1.0
Site-specific number of volume changes per year (VC)		-1.0
Site-specific fraction of run-off water (ROf)		-1.0
Wash coefficient-fraction of material washed by runoff (WC)		-1.0
Site-specific watershed area impacted (WSIA) (m2)		-1.0
Site-specific average annual rainfall (RF) (m)		-1.0
Site-specific watershed run-off coefficient (ROC)		-1.0
*** VEGETATION ***		
Location (receptor #) of crop source		0
Soil mixing depth (SD) for homegrown crops (m)		0.150
Interception coefficient for root crops (IFC_ROOT)		0.0
Interception coefficient for leafy crops (IFC_LEAFY)		0.20
Interception coefficient for vine crops (IFC_VINE)		0.10
Weathering constant (k) (1/d)		0.0495
Crop yield (Y) (kg/m2)		2.0
Crop growth period (T) (d)		90.0
Root uptake (UF2) - ROOT	- Arsenic	2.00E-03
	- Beryllium	4.00E-04
	- Cadmium	4.00E-02
	- Chlorobenzene	-1.0
	- Chromium (hex.)	1.00E-03
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	2.00E-03
	- Mercury	2.00E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Root uptake (UF2) - LEAF	- Arsenic	4.00E-03
	- Beryllium	1.00E-03
	- Cadmium	6.00E-02
	- Chlorobenzene	-1.0
	- Chromium (hex.)	8.00E-04
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	5.00E-03
	- Mercury	9.00E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0

	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Root uptake (UF2) - VINE	- Arsenic	9.00E-04
	- Beryllium	2.00E-04
	- Cadmium	2.00E-02
	- Chlorobenzene	-1.0
	- Chromium (hex.)	6.00E-04
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	1.00E-03
	- Mercury	3.00E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Octanol:water partition factor (Kow)	- Arsenic	-1.0
	- Beryllium	-1.0
	- Cadmium	-1.0
	- Chlorobenzene	-1.0
	- Chromium (hex.)	-1.0
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	-1.0
	- Mercury	-1.0
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Organic carbon partition coeff (Koc)	- Arsenic	-1.0
	- Beryllium	-1.0
	- Cadmium	-1.0
	- Chlorobenzene	-1.0
	- Chromium (hex.)	-1.0
	- Dioxins/Dibenzofuran	-1.0
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	-1.0
	- Mercury	-1.0
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	-1.0
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	-1.0
	- 2,4,5Trichlorophenol	-1.0
Fraction of organic in soil (Foc)		0.10
*** ANIMAL PRODUCTS ***		
Location (receptor #) of animal farm		-1
Soil mixing depth (SD) for animal pasture (m)		0.010
Soil mixing depth (SD) for animal feed (m)		0.150

Inhalation rate (RR) (m3/d)	- Cattle/Lactating	8.00E+01
	- Pigs	7.00E+00
	- Poultry	1.00E+00
	- Goats/Sheep	6.00E+00
Water ingestion rate (WI) (kg/d)	- Cattle/Lactating	1.00E+02
	- Pigs	8.00E+00
	- Poultry	6.00E-01
	- Goats/Sheep	6.00E+00
Site-specific % water ingested from contaminated water (%SW)		0.25
Site-specific % diet provided by grazing (%G)		0.50
Site-specific % feed other than pasture locally grown (L)		1.00
Feed ingestion rate (FI) (kg/d)	- Cattle	8.00E+00
	- Lactating	1.60E+01
	- Pigs	2.00E+00
	- Poultry	3.00E-01
	- Goats/Sheep	2.00E+00
Soil ingested as % of feed ingested (%Sf)	- Cattle/Lactating	1.00E-02
	- Pigs	1.00E-02
	- Poultry	1.00E-02
	- Goats/Sheep	1.00E-02
Soil ingested as % of pasture ingested (%Sp)	- Cattle/Lactating	5.00E-02
	- Pigs	3.00E-02
	- Poultry	3.00E-02
	- Goats/Sheep	7.00E-02
Transfer coefficient of contaminant from diet to meat product (Fi_meat)	- Arsenic	2.00E-03
	- Beryllium	1.00E-03
	- Cadmium	3.50E-04
	- Chlorobenzene	-1.0
	- Chromium (hex.)	9.20E-03
	- Dioxins/Dibenzofuran	4.00E-01
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	4.00E-04
	- Mercury	2.70E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	5.00E-02
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	9.00E-05
	- 2,4,5Trichlorophenol	-1.0
Transfer coefficient of contaminant from diet to milk product (Fi_milk)	- Arsenic	6.20E-05
	- Beryllium	9.10E-07
	- Cadmium	1.00E-03
	- Chlorobenzene	-1.0
	- Chromium (hex.)	1.00E-05
	- Dioxins/Dibenzofuran	4.00E-02
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	2.60E-04
	- Mercury	9.70E-06
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	1.00E-02
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	4.20E-05
	- 2,4,5Trichlorophenol	-1.0
Transfer coefficient of contaminant from diet to egg product (Fi_egg)	- Arsenic	2.00E-03
	- Beryllium	1.00E-03
	- Cadmium	3.50E-04
	- Chlorobenzene	-1.0
	- Chromium (hex.)	9.20E-03
	- Dioxins/Dibenzofuran	4.00E-01
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	4.00E-04
	- Mercury	2.70E-02
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0

	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	-1.0
	- PAH	-1.0
	- Polychlor. biphenyls	5.00E-02
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	9.00E-05
	- 2,4,5Trichlorophenol	-1.0
Location (receptor #) of animal's water source		-1
Site-specific water surface area (SA) (m2)		1000.0
Site-specific water volume (WV) (kg)		2.00E+06
Site-specific number of volume changes per year (VC)		5.0
Site-specific fraction of run-off water (ROf)		-1.0
Wash coefficient-fraction of material washed by runoff (WC)		-1.0
Site-specific watershed area impacted (WSIA) (m2)		-1.0
Site-specific average annual rainfall (RF) (m)		-1.0
Site-specific watershed run-off coefficient (ROC)		-1.0
*** FISH PRODUCTS ***		
Location (receptor #) of fish farm/pond/lake/stream		-1
Site-specific water surface area (SA) (m2)		1.50E+05
Site-specific water volume (WV) (kg)		3.00E+08
Site-specific number of volume changes per year (VC)		5000.0
Site-specific fraction of run-off water (ROf)		-1.0
Wash coefficient-fraction of material washed by runoff (WC)		-1.0
Site-specific watershed area impacted (WSIA) (m2)		-1.0
Site-specific average annual rainfall (RF) (m)		-1.0
Site-specific watershed run-off coefficient (ROC)		-1.0
Bioconcentration factor (BCF)	- Arsenic	4.00E+00
	- Beryllium	1.90E+01
	- Cadmium	1.00E+02
	- Chlorobenzene	-1.0
	- Chromium (hex.)	2.00E+00
	- Dioxins/Dibenzofuran	5.00E+03
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	8.00E+03
	- Hexachlorocyclohexan	-1.0
	- Lead	1.55E+02
	- Mercury	5.00E+03
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0
	- NNitrosopyrrolidine	-1.0
	- Naphthalene	1.55E+03
	- PAH	1.55E+03
	- Polychlor. biphenyls	1.00E+05
	- Pentachlorophenol	-1.0
	- 2,4,6Trichlorophenol	5.00E+02
	- 2,4,5Trichlorophenol	-1.0
*** DERMAL ABSORPTION PATHWAY ***		
Surface area of exposed skin (SA) (cm2)		4656.0
Soil loading on skin (SL)		0.50
Fraction absorbed across skin (ABS)	- Arsenic	1.00E-03
	- Beryllium	1.00E-03
	- Cadmium	2.00E-03
	- Chlorobenzene	1.00E-01
	- Chromium (hex.)	1.00E-02
	- Dioxins/Dibenzofuran	2.00E-02
	- 2-Chlorophenol	1.00E-01
	- p-Dichlorobenzene	1.00E-01
	- Hexachlorobenzene	1.00E-01
	- Hexachlorocyclohexan	1.00E-01
	- Lead	1.00E-03
	- Mercury	1.00E-02
	- NNitrosodiethylamine	1.00E-01
	- NNitrosodimethylamin	1.00E-01
	- NNitrosodiphenylamin	1.00E-01
	- NNitrosodinbutylamin	1.00E-01
	- NNitrosodinpropylami	1.00E-01
	- NNitromethyethylamin	1.00E-01
	- NNitrosomorpholine	1.00E-01
	- NNitrosopiperidine	1.00E-01
	- NNitrosopyrrolidine	1.00E-01
	- Naphthalene	3.00E-02
	- PAH	3.00E-02
	- Polychlor. biphenyls	1.50E-01
	- Pentachlorophenol	1.00E-01
	- 2,4,6Trichlorophenol	1.00E-01
	- 2,4,5Trichlorophenol	1.00E-01
*** SOIL INGESTION PATHWAY ***		
Lifetime average soil ingestion rate per day (Is) (mg/d)		110.0
Gastrointestinal absorption factor (GI)	- Arsenic	1.00E+00
	- Beryllium	1.00E+00
	- Cadmium	1.00E+00
	- Chlorobenzene	1.00E+00
	- Chromium (hex.)	1.00E+00
	- Dioxins/Dibenzofuran	1.00E+00
	- 2-Chlorophenol	1.00E+00
	- p-Dichlorobenzene	1.00E+00
	- Hexachlorobenzene	1.00E+00
	- Hexachlorocyclohexan	1.00E+00
	- Lead	1.00E+00

	- Mercury	1.00E+00
	- NNitrosodiethylamine	1.00E+00
	- NNitrosodimethylamin	1.00E+00
	- NNitrosodiphenylamin	1.00E+00
	- NNitrosodinbutylamin	1.00E+00
	- NNitrosodinpropylami	1.00E+00
	- NNitromethyethylamin	1.00E+00
	- NNitrosomorpholine	1.00E+00
	- NNitrosopiperidine	1.00E+00
	- NNitrosopyrrolidine	1.00E+00
	- Naphthalene	1.00E+00
	- PAH	1.00E+00
	- Polychlor. biphenyls	1.00E+00
	- Pentachlorophenol	1.00E+00
	- 2,4,6Trichlorophenol	1.00E+00
	- 2,4,5Trichlorophenol	1.00E+00
Bioavailability factors (BIO)	- Arsenic	1.0
	- Beryllium	1.0
	- Cadmium	1.0
	- Chlorobenzene	1.0
	- Chromium (hex.)	1.0
	- Dioxins/Dibenzofuran	4.30E-01
	- 2-Chlorophenol	1.0
	- p-Dichlorobenzene	1.0
	- Hexachlorobenzene	1.0
	- Hexachlorocyclohexan	1.0
	- Lead	1.0
	- Mercury	1.0
	- NNitrosodiethylamine	1.0
	- NNitrosodimethylamin	1.0
	- NNitrosodiphenylamin	1.0
	- NNitrosodinbutylamin	1.0
	- NNitrosodinpropylami	1.0
	- NNitromethyethylamin	1.0
	- NNitrosomorpholine	1.0
	- NNitrosopiperidine	1.0
	- NNitrosopyrrolidine	1.0
	- Naphthalene	1.0
	- PAH	1.0
	- Polychlor. biphenyls	1.0
	- Pentachlorophenol	1.0
	- 2,4,6Trichlorophenol	1.0
	- 2,4,5Trichlorophenol	1.0
*** WATER INGESTION PATHWAY ***		
Lifetime average water ingestion rate per day (Iw) (l/d)		2.0
*** FOOD INGESTION - PLANT PRODUCTS PATHWAY ***		
Site-specific fraction of root vegetable homegrown (L_Ir)		0.150
Site-specific fraction of leafy veget homegrown (L_leafy)		0.150
Site-specific fraction of vine veget homegrown (L_vine)		0.150
Daily consumption rate of root vegetable (IF_Ir) (kg/d)		0.050
Daily consumption rate of leafy veget (IF_leafy) (kg/d)		0.010
Daily consumption rate of vine veget (IF_vine) (kg/d)		0.250
*** FOOD INGESTION - ANIMAL PRODUCTS PATHWAY ***		
Site-specific fraction of milk locally produced (L_Im)		0.00
Site-specific fraction of milk from cows		0.00
Site-specific fraction of milk from goats		0.00
Site-specific fraction of meat locally produced (L_Ib)		0.50
Site-specific fraction of meat from cows		0.50
Site-specific fraction of meat from pigs		0.00
Site-specific fraction of meat from poultry		0.50
Site-specific fraction of meat from goats/sheep		0.00
Site-specific fraction of eggs locally produced		1.00
Site-specific fraction of fish locally produced (L_Ifi)		0.00
Daily consumption rate of milk (IF_Im) (kg/d)		0.30
Daily consumption rate of meat (IF_Ib) (kg/d)		0.10
Daily consumption rate of egg (kg/d)		0.05
Daily consumption rate of fish (IF_Ifi) (kg/d)		0.023
*** MOTHER'S MILK PATHWAY ***		
Beginning of exposure period for mother (d)		0.0
End of exposure period for mother (d)		9490.0
Daily breast-milk ingestion rate (DERm) (kg/d)		0.90
Frequency of exposure (F) (d)		365.0
Period of exposure (YR) (yr)		1.00
Infant average body weight (ABS) (kg)		6.50
Fraction of contaminant partitioned to mother's fat (f1)		0.90
Percent fat of mother's milk (f3)		0.040
Percent mother's weight that is fat (f2)		0.330
Contaminant half-life in mother (t1/2) (d)	- Arsenic	-1.0
	- Beryllium	-1.0
	- Cadmium	-1.0
	- Chlorobenzene	-1.0
	- Chromium (hex.)	-1.0
	- Dioxins/Dibenzofuran	2117.00
	- 2-Chlorophenol	-1.0
	- p-Dichlorobenzene	-1.0
	- Hexachlorobenzene	-1.0
	- Hexachlorocyclohexan	-1.0
	- Lead	-1.0
	- Mercury	-1.0
	- NNitrosodiethylamine	-1.0
	- NNitrosodimethylamin	-1.0
	- NNitrosodiphenylamin	-1.0
	- NNitrosodinbutylamin	-1.0
	- NNitrosodinpropylami	-1.0
	- NNitromethyethylamin	-1.0
	- NNitrosomorpholine	-1.0
	- NNitrosopiperidine	-1.0

- NNitrosopyrrolidine -1.0
- Naphthalene -1.0
- PAH 1460.0
- Polychlor. biphenyls 1460.0
- Pentachlorophenol -1.0
- 2,4,6Trichlorophenol -1.0
- 2,4,5Trichlorophenol -1.0

*** PREDICTED PEAK 1-HOUR CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	ACETA	ACROL	As	BENZE	Be	Cd	Cr	Cu	HCHO	HCN
1	0.000E+00	0.000E+00	1.311E-02	0.000E+00	1.470E-02	4.823E-04	1.467E-04	1.130E-03	0.000E+00	7.196E+00
2	0.000E+00	0.000E+00	9.722E-03	0.000E+00	1.097E-02	3.573E-04	1.092E-04	8.396E-04	0.000E+00	4.589E+00
3	0.000E+00	0.000E+00	9.902E-03	0.000E+00	1.119E-02	3.671E-04	1.113E-04	8.552E-04	0.000E+00	4.516E+00
4	0.000E+00	0.000E+00	1.667E-02	0.000E+00	1.892E-02	5.836E-04	1.875E-04	1.437E-03	0.000E+00	8.406E+00
5	0.000E+00	0.000E+00	1.626E-02	0.000E+00	1.830E-02	5.889E-04	1.814E-04	1.402E-03	0.000E+00	8.085E+00
6	0.000E+00	0.000E+00	1.572E-02	0.000E+00	1.784E-02	5.959E-04	1.769E-04	1.356E-03	0.000E+00	7.626E+00
7	0.000E+00	0.000E+00	1.218E-02	0.000E+00	1.391E-02	4.638E-04	1.378E-04	1.053E-03	0.000E+00	4.229E+00
8	0.000E+00	0.000E+00	1.195E-02	0.000E+00	1.349E-02	4.296E-04	1.342E-04	1.032E-03	0.000E+00	4.339E+00
9	0.000E+00	0.000E+00	1.243E-02	0.000E+00	1.411E-02	4.582E-04	1.400E-04	1.074E-03	0.000E+00	4.446E+00
10	0.000E+00	0.000E+00	1.922E-02	0.000E+00	2.144E-02	6.730E-04	2.144E-04	1.657E-03	0.000E+00	1.444E+01
11	0.000E+00	0.000E+00	1.085E-02	0.000E+00	1.227E-02	3.803E-04	1.218E-04	9.354E-04	0.000E+00	7.768E+00
12	0.000E+00	0.000E+00	2.502E-02	0.000E+00	2.850E-02	8.757E-04	2.819E-04	2.158E-03	0.000E+00	2.622E+01
13	0.000E+00	0.000E+00	4.991E-02	0.000E+00	5.687E-02	2.301E-03	5.678E-04	4.305E-03	0.000E+00	1.466E+01
14	0.000E+00	0.000E+00	5.137E-02	0.000E+00	5.862E-02	2.597E-03	5.870E-04	4.431E-03	0.000E+00	1.427E+01
15	0.000E+00	0.000E+00	5.193E-02	0.000E+00	5.931E-02	2.692E-03	5.942E-04	4.480E-03	0.000E+00	1.283E+01
16	0.000E+00	0.000E+00	5.266E-02	0.000E+00	6.021E-02	2.537E-03	6.011E-04	4.542E-03	0.000E+00	1.611E+01
17	0.000E+00	0.000E+00	1.799E-02	0.000E+00	2.029E-02	6.298E-04	2.017E-04	1.551E-03	0.000E+00	1.468E+01
18	0.000E+00	0.000E+00	1.404E-02	0.000E+00	1.591E-02	4.916E-04	1.578E-04	1.211E-03	0.000E+00	1.529E+01
19	0.000E+00	0.000E+00	1.584E-02	0.000E+00	1.792E-02	5.546E-04	1.779E-04	1.366E-03	0.000E+00	1.481E+01
20	0.000E+00	0.000E+00	1.630E-02	0.000E+00	1.844E-02	5.704E-04	1.830E-04	1.405E-03	0.000E+00	1.899E+01
21	0.000E+00	0.000E+00	4.210E-02	0.000E+00	4.476E-02	1.477E-03	4.590E-04	3.625E-03	0.000E+00	3.376E+01
22	0.000E+00	0.000E+00	3.907E-02	0.000E+00	4.174E-02	1.370E-03	4.269E-04	3.364E-03	0.000E+00	3.397E+01
23	0.000E+00	0.000E+00	4.472E-02	0.000E+00	4.896E-02	1.567E-03	4.943E-04	3.853E-03	0.000E+00	3.660E+01
24	0.000E+00	0.000E+00	5.676E-02	0.000E+00	6.328E-02	1.988E-03	6.329E-04	4.892E-03	0.000E+00	3.755E+01
25	0.000E+00	0.000E+00	5.944E-02	0.000E+00	6.636E-02	2.082E-03	6.632E-04	5.124E-03	0.000E+00	3.761E+01
26	0.000E+00	0.000E+00	5.151E-02	0.000E+00	5.865E-02	2.008E-03	5.822E-04	4.443E-03	0.000E+00	4.048E+01
27	0.000E+00	0.000E+00	3.788E-02	0.000E+00	4.456E-02	1.495E-03	4.352E-04	3.270E-03	0.000E+00	2.453E+01
28	0.000E+00	0.000E+00	4.019E-02	0.000E+00	4.518E-02	1.407E-03	4.501E-04	3.466E-03	0.000E+00	2.567E+01
29	0.000E+00	0.000E+00	6.323E-02	0.000E+00	7.033E-02	2.214E-03	7.045E-04	5.450E-03	0.000E+00	2.895E+01
30	0.000E+00	0.000E+00	7.169E-02	0.000E+00	8.051E-02	2.510E-03	8.024E-04	6.181E-03	0.000E+00	3.080E+01
31	0.000E+00	0.000E+00	6.821E-02	0.000E+00	7.702E-02	2.388E-03	7.655E-04	5.882E-03	0.000E+00	3.607E+01
32	0.000E+00	0.000E+00	5.625E-02	0.000E+00	6.378E-02	1.969E-03	6.321E-04	4.852E-03	0.000E+00	4.389E+01
33	0.000E+00	0.000E+00	5.257E-02	0.000E+00	6.017E-02	2.096E-03	5.962E-04	4.535E-03	0.000E+00	4.429E+01
34	0.000E+00	0.000E+00	5.324E-02	0.000E+00	6.073E-02	1.977E-03	6.014E-04	4.593E-03	0.000E+00	4.528E+01
35	0.000E+00	0.000E+00	3.703E-02	0.000E+00	4.169E-02	1.296E-03	4.148E-04	3.193E-03	0.000E+00	4.364E+01
36	0.000E+00	0.000E+00	3.039E-02	0.000E+00	3.432E-02	1.064E-03	3.409E-04	2.620E-03	0.000E+00	4.184E+01
37	0.000E+00	0.000E+00	3.266E-02	0.000E+00	3.734E-02	1.143E-03	3.686E-04	2.817E-03	0.000E+00	3.997E+01
38	0.000E+00	0.000E+00	1.687E-02	0.000E+00	1.903E-02	5.906E-04	1.892E-04	1.455E-03	0.000E+00	3.986E+01
39	0.000E+00	0.000E+00	1.820E-02	0.000E+00	2.052E-02	6.371E-04	2.041E-04	1.569E-03	0.000E+00	4.475E+01
40	0.000E+00	0.000E+00	1.977E-02	0.000E+00	2.226E-02	6.923E-04	2.215E-04	1.705E-03	0.000E+00	4.465E+01
41	0.000E+00	0.000E+00	2.541E-02	0.000E+00	2.859E-02	6.325E-03	2.846E-04	2.191E-03	0.000E+00	3.741E+01
42	0.000E+00	0.000E+00	2.658E-02	0.000E+00	2.949E-02	1.871E-03	2.955E-04	2.291E-03	0.000E+00	2.004E+01
43	0.000E+00	0.000E+00	1.576E-02	0.000E+00	1.560E-02	1.388E-03	1.581E-04	1.334E-03	0.000E+00	2.094E+01
44	0.000E+00	0.000E+00	1.390E-02	0.000E+00	1.121E-02	3.145E-03	1.128E-04	1.180E-03	0.000E+00	2.178E+01
45	0.000E+00	0.000E+00	1.683E-02	0.000E+00	1.406E-02	6.000E-04	1.416E-04	1.428E-03	0.000E+00	2.066E+01
46	0.000E+00	0.000E+00	1.667E-02	0.000E+00	1.317E-02	5.949E-04	1.336E-04	1.413E-03	0.000E+00	1.927E+01
47	0.000E+00	0.000E+00	2.227E-02	0.000E+00	1.476E-02	1.464E-03	1.770E-04	1.910E-03	0.000E+00	1.619E+01
48	0.000E+00	0.000E+00	2.076E-02	0.000E+00	1.950E-02	9.680E-04	1.964E-04	1.756E-03	0.000E+00	1.309E+01
49	0.000E+00	0.000E+00	2.091E-02	0.000E+00	1.570E-02	1.388E-03	1.637E-04	1.769E-03	0.000E+00	1.078E+01
50	0.000E+00	0.000E+00	1.750E-02	0.000E+00	1.861E-02	1.948E-03	1.924E-04	1.517E-03	0.000E+00	9.421E+00
51	0.000E+00	0.000E+00	1.673E-02	0.000E+00	1.839E-02	2.810E-03	1.874E-04	1.451E-03	0.000E+00	9.681E+00
52	0.000E+00	0.000E+00	1.406E-02	0.000E+00	1.553E-02	1.598E-03	1.580E-04	1.218E-03	0.000E+00	9.715E+00
53	0.000E+00	0.000E+00	1.267E-02	0.000E+00	1.218E-02	6.150E-04	1.230E-04	1.073E-03	0.000E+00	1.017E+01
54	0.000E+00	0.000E+00	1.179E-02	0.000E+00	1.281E-02	2.066E-03	1.299E-04	1.017E-03	0.000E+00	1.036E+01
55	0.000E+00	0.000E+00	1.407E-02	0.000E+00	1.574E-02	1.994E-03	1.589E-04	1.220E-03	0.000E+00	8.870E+00
56	0.000E+00	0.000E+00	1.624E-02	0.000E+00	1.810E-02	1.913E-03	1.821E-04	1.407E-03	0.000E+00	8.151E+00
57	0.000E+00	0.000E+00	1.762E-02	0.000E+00	1.998E-02	7.160E-04	1.983E-04	1.522E-03	0.000E+00	7.381E+00
58	0.000E+00	0.000E+00	1.881E-02	0.000E+00	2.150E-02	7.112E-04	2.123E-04	1.624E-03	0.000E+00	7.228E+00
59	0.000E+00	0.000E+00	2.066E-02	0.000E+00	2.372E-02	2.118E-03	2.337E-04	1.786E-03	0.000E+00	7.080E+00
60	0.000E+00	0.000E+00	2.411E-02	0.000E+00	2.778E-02	9.355E-04	2.741E-04	2.085E-03	0.000E+00	6.963E+00
61	0.000E+00	0.000E+00	4.416E-02	0.000E+00	4.891E-02	1.874E-03	4.934E-04	3.820E-03	0.000E+00	6.812E+00
62	0.000E+00	0.000E+00	4.877E-02	0.000E+00	5.314E-02	2.045E-03	5.398E-04	4.216E-03	0.000E+00	6.681E+00
63	0.000E+00	0.000E+00	3.122E-02	0.000E+00	3.570E-02	1.093E-03	3.525E-04	2.698E-03	0.000E+00	6.566E+00
64	0.000E+00	0.000E+00	2.838E-02	0.000E+00	3.219E-02	2.578E-03	3.191E-04	2.447E-03	0.000E+00	6.195E+00
65	0.000E+00	0.000E+00	2.688E-02	0.000E+00	2.353E-02	1.391E-03	2.651E-04	2.324E-03	0.000E+00	6.123E+00
66	0.000E+00	0.000E+00	2.530E-02	0.000E+00	2.775E-02	1.250E-03	2.800E-04	2.185E-03	0.000E+00	6.048E+00
67	0.000E+00	0.000E+00	2.174E-02	0.000E+00	2.336E-02	1.225E-03	2.378E-04	1.872E-03	0.000E+00	5.983E+00
68	0.000E+00	0.000E+00	2.009E-02	0.000E+00	2.107E-02	3.486E-03	2.177E-04	1.729E-03	0.000E+00	6.223E+00
69	0.000E+00	0.000E+00	3.001E-02	0.000E+00	3.150E-02	1.530E-03	3.192E-04	2.596E-03	0.000E+00	6.953E+00
70	0.000E+00	0.000E+00	3.405E-02	0.000E+00	3.754E-02	1.356E-03	3.793E-04	2.934E-03	0.000E+00	7.957E+00
71	0.000E+00	0.000E+00	5.007E-02	0.000E+00	5.139E-02	2.035E-03	5.371E-04	4.330E-03	0.000E+00	8.086E+00
72	0.000E+00	0.000E+00	2.585E-02	0.000E+00	2.898E-02	1.038E-03	2.902E-04	2.229E-03	0.000E+00	8.199E+00
73	0.000E+00	0.000E+00	1.760E-02	0.000E+00	1.947E-02	2.134E-03	1.959E-04	1.517E-03	0.000E+00	8.231E+00
74	0.000E+00	0.000E+00	2.182E-02	0.000E+00	2.458E-02	9.119E-04	2.454E-04	1.885E-03	0.000E+00	8.229E+00
75	0.000E+00	0.000E+00	1.730E-02	0.000E+00	1.939E-02	2.039E-03	1.952E-04	1.493E-03	0.000E+00	9.217E+00
76	0.000E+00	0.000E+00	1.782E-02	0.000E+00	1.985E-02	1.052E-03	1.986E-04	1.536E-03	0.000E+00	9.818E+00

77	0.000E+00	0.000E+00	1.958E-02	0.000E+00	2.194E-02	9.497E-04	2.189E-04	1.688E-03	0.000E+00	1.056E+01
78	0.000E+00	0.000E+00	1.916E-02	0.000E+00	2.172E-02	2.044E-03	2.154E-04	1.652E-03	0.000E+00	1.063E+01
79	0.000E+00	0.000E+00	2.143E-02	0.000E+00	2.435E-02	2.311E-03	2.412E-04	1.848E-03	0.000E+00	1.138E+01
80	0.000E+00	0.000E+00	2.218E-02	0.000E+00	2.509E-02	1.318E-03	2.491E-04	1.913E-03	0.000E+00	1.239E+01
81	0.000E+00	0.000E+00	2.074E-02	0.000E+00	2.313E-02	1.178E-03	2.314E-04	1.788E-03	0.000E+00	1.357E+01
82	0.000E+00	0.000E+00	2.000E-02	0.000E+00	2.191E-02	7.008E-04	2.212E-04	1.723E-03	0.000E+00	1.505E+01
83	0.000E+00	0.000E+00	2.228E-02	0.000E+00	2.434E-02	7.809E-04	2.461E-04	1.920E-03	0.000E+00	1.700E+01
84	0.000E+00	0.000E+00	2.307E-02	0.000E+00	2.521E-02	8.085E-04	2.549E-04	1.988E-03	0.000E+00	2.001E+01
85	0.000E+00	0.000E+00	3.182E-02	0.000E+00	3.473E-02	1.115E-03	3.513E-04	2.742E-03	0.000E+00	2.545E+01
86	0.000E+00	0.000E+00	6.731E-02	0.000E+00	7.265E-02	2.359E-03	7.393E-04	5.797E-03	0.000E+00	4.141E+01
87	0.000E+00	0.000E+00	6.043E-02	0.000E+00	6.605E-02	2.117E-03	6.677E-04	5.206E-03	0.000E+00	3.892E+01
88	0.000E+00	0.000E+00	5.781E-02	0.000E+00	6.403E-02	2.025E-03	6.428E-04	4.982E-03	0.000E+00	4.017E+01
89	0.000E+00	0.000E+00	5.555E-02	0.000E+00	6.198E-02	1.945E-03	6.198E-04	4.789E-03	0.000E+00	3.082E+01
90	0.000E+00	0.000E+00	4.929E-02	0.000E+00	5.504E-02	1.726E-03	5.501E-04	4.249E-03	0.000E+00	3.201E+01
91	0.000E+00	0.000E+00	1.726E-02	0.000E+00	1.933E-02	6.228E-04	1.931E-04	1.491E-03	0.000E+00	5.940E+00
92	0.000E+00	0.000E+00	1.787E-02	0.000E+00	2.008E-02	6.770E-04	2.005E-04	1.545E-03	0.000E+00	5.686E+00
93	0.000E+00	0.000E+00	1.714E-02	0.000E+00	1.922E-02	6.983E-04	1.926E-04	1.482E-03	0.000E+00	5.466E+00
94	0.000E+00	0.000E+00	1.750E-02	0.000E+00	2.004E-02	8.918E-04	1.978E-04	1.511E-03	0.000E+00	5.385E+00
95	0.000E+00	0.000E+00	1.861E-02	0.000E+00	2.135E-02	8.681E-04	2.107E-04	1.608E-03	0.000E+00	5.415E+00
96	0.000E+00	0.000E+00	1.944E-02	0.000E+00	2.157E-02	6.819E-04	2.163E-04	1.676E-03	0.000E+00	5.441E+00
97	0.000E+00	0.000E+00	2.294E-02	0.000E+00	2.578E-02	8.048E-04	2.568E-04	1.978E-03	0.000E+00	5.477E+00
98	0.000E+00	0.000E+00	2.643E-02	0.000E+00	2.914E-02	9.260E-04	2.932E-04	2.278E-03	0.000E+00	5.520E+00
99	0.000E+00	0.000E+00	2.210E-02	0.000E+00	2.518E-02	7.946E-04	2.492E-04	1.909E-03	0.000E+00	5.560E+00
100	0.000E+00	0.000E+00	2.396E-02	0.000E+00	2.659E-02	8.406E-04	2.666E-04	2.065E-03	0.000E+00	5.599E+00
101	0.000E+00	0.000E+00	2.185E-02	0.000E+00	2.468E-02	1.453E-03	2.453E-04	1.884E-03	0.000E+00	5.646E+00
102	0.000E+00	0.000E+00	2.450E-02	0.000E+00	2.787E-02	8.574E-04	2.759E-04	2.117E-03	0.000E+00	5.712E+00
103	0.000E+00	0.000E+00	1.768E-02	0.000E+00	1.975E-02	6.514E-04	1.976E-04	1.528E-03	0.000E+00	5.890E+00
104	0.000E+00	0.000E+00	1.680E-02	0.000E+00	1.873E-02	6.989E-04	1.882E-04	1.453E-03	0.000E+00	5.653E+00
105	0.000E+00	0.000E+00	1.741E-02	0.000E+00	1.991E-02	7.992E-04	1.966E-04	1.503E-03	0.000E+00	5.488E+00
106	0.000E+00	0.000E+00	1.894E-02	0.000E+00	2.171E-02	1.353E-03	2.142E-04	1.636E-03	0.000E+00	5.523E+00
107	0.000E+00	0.000E+00	2.152E-02	0.000E+00	2.389E-02	1.126E-03	2.395E-04	1.855E-03	0.000E+00	5.555E+00
108	0.000E+00	0.000E+00	2.397E-02	0.000E+00	2.686E-02	9.465E-04	2.680E-04	2.068E-03	0.000E+00	5.564E+00
109	0.000E+00	0.000E+00	2.539E-02	0.000E+00	2.875E-02	1.032E-03	2.853E-04	2.191E-03	0.000E+00	5.628E+00
110	0.000E+00	0.000E+00	2.465E-02	0.000E+00	2.811E-02	1.297E-03	2.780E-04	2.129E-03	0.000E+00	5.668E+00
111	0.000E+00	0.000E+00	2.075E-02	0.000E+00	2.371E-02	1.104E-03	2.346E-04	1.795E-03	0.000E+00	5.709E+00
112	0.000E+00	0.000E+00	2.361E-02	0.000E+00	2.673E-02	1.400E-03	2.654E-04	2.037E-03	0.000E+00	5.753E+00
113	0.000E+00	0.000E+00	2.696E-02	0.000E+00	3.076E-02	1.609E-03	3.041E-04	2.326E-03	0.000E+00	5.794E+00
114	0.000E+00	0.000E+00	2.810E-02	0.000E+00	3.217E-02	9.834E-04	3.175E-04	2.428E-03	0.000E+00	5.871E+00
115	0.000E+00	0.000E+00	1.628E-02	0.000E+00	1.799E-02	9.261E-04	1.814E-04	1.409E-03	0.000E+00	5.861E+00
116	0.000E+00	0.000E+00	1.720E-02	0.000E+00	1.962E-02	1.244E-03	1.940E-04	1.485E-03	0.000E+00	5.607E+00
117	0.000E+00	0.000E+00	1.915E-02	0.000E+00	2.192E-02	1.422E-03	2.165E-04	1.654E-03	0.000E+00	5.638E+00
118	0.000E+00	0.000E+00	2.294E-02	0.000E+00	2.539E-02	1.971E-03	2.550E-04	1.977E-03	0.000E+00	5.674E+00
119	0.000E+00	0.000E+00	2.663E-02	0.000E+00	2.980E-02	2.626E-03	2.976E-04	2.297E-03	0.000E+00	5.712E+00
120	0.000E+00	0.000E+00	2.788E-02	0.000E+00	3.155E-02	1.826E-03	3.132E-04	2.406E-03	0.000E+00	5.745E+00
121	0.000E+00	0.000E+00	2.624E-02	0.000E+00	2.989E-02	1.364E-03	2.958E-04	2.266E-03	0.000E+00	5.785E+00
122	0.000E+00	0.000E+00	2.309E-02	0.000E+00	2.641E-02	1.993E-03	2.611E-04	1.998E-03	0.000E+00	5.830E+00
123	0.000E+00	0.000E+00	2.518E-02	0.000E+00	2.855E-02	1.935E-03	2.831E-04	2.172E-03	0.000E+00	5.871E+00
124	0.000E+00	0.000E+00	2.798E-02	0.000E+00	3.193E-02	2.070E-03	3.156E-04	2.413E-03	0.000E+00	5.942E+00
125	0.000E+00	0.000E+00	2.911E-02	0.000E+00	3.335E-02	1.019E-03	3.290E-04	2.515E-03	0.000E+00	5.992E+00
126	0.000E+00	0.000E+00	3.021E-02	0.000E+00	3.473E-02	1.057E-03	3.420E-04	2.610E-03	0.000E+00	6.040E+00
127	0.000E+00	0.000E+00	1.691E-02	0.000E+00	1.921E-02	1.686E-03	1.903E-04	1.459E-03	0.000E+00	5.806E+00
128	0.000E+00	0.000E+00	1.927E-02	0.000E+00	2.198E-02	1.935E-03	2.174E-04	1.664E-03	0.000E+00	5.767E+00
129	0.000E+00	0.000E+00	2.379E-02	0.000E+00	2.614E-02	2.617E-03	2.635E-04	2.050E-03	0.000E+00	5.810E+00
130	0.000E+00	0.000E+00	2.622E-02	0.000E+00	2.904E-02	1.066E-03	2.915E-04	2.264E-03	0.000E+00	5.862E+00
131	0.000E+00	0.000E+00	2.369E-02	0.000E+00	2.642E-02	1.222E-03	2.651E-04	2.046E-03	0.000E+00	5.885E+00
132	0.000E+00	0.000E+00	2.875E-02	0.000E+00	3.272E-02	2.521E-03	3.246E-04	2.483E-03	0.000E+00	5.941E+00
133	0.000E+00	0.000E+00	2.498E-02	0.000E+00	2.856E-02	2.167E-03	2.823E-04	2.161E-03	0.000E+00	5.957E+00
134	0.000E+00	0.000E+00	2.567E-02	0.000E+00	2.907E-02	1.052E-03	2.885E-04	2.213E-03	0.000E+00	6.022E+00
135	0.000E+00	0.000E+00	2.781E-02	0.000E+00	3.171E-02	9.733E-04	3.136E-04	2.399E-03	0.000E+00	6.079E+00
136	0.000E+00	0.000E+00	4.028E-02	0.000E+00	4.285E-02	1.767E-03	4.421E-04	3.484E-03	0.000E+00	6.123E+00
137	0.000E+00	0.000E+00	3.341E-02	0.000E+00	3.682E-02	1.523E-03	3.669E-04	2.892E-03	0.000E+00	6.171E+00
138	0.000E+00	0.000E+00	3.468E-02	0.000E+00	3.702E-02	1.552E-03	3.815E-04	3.001E-03	0.000E+00	6.222E+00
139	0.000E+00	0.000E+00	1.986E-02	0.000E+00	2.196E-02	3.251E-03	2.179E-04	1.710E-03	0.000E+00	5.950E+00
140	0.000E+00	0.000E+00	2.391E-02	0.000E+00	2.589E-02	1.195E-03	2.630E-04	2.060E-03	0.000E+00	5.963E+00
141	0.000E+00	0.000E+00	2.716E-02	0.000E+00	2.967E-02	1.200E-03	3.000E-04	2.344E-03	0.000E+00	5.995E+00
142	0.000E+00	0.000E+00	3.351E-02	0.000E+00	2.952E-02	1.669E-03	3.386E-04	2.893E-03	0.000E+00	6.017E+00
143	0.000E+00	0.000E+00	3.062E-02	0.000E+00	2.773E-02	1.541E-03	3.133E-04	2.646E-03	0.000E+00	6.076E+00
144	0.000E+00	0.000E+00	2.559E-02	0.000E+00	2.917E-02	9.913E-04	2.893E-04	2.213E-03	0.000E+00	6.128E+00
145	0.000E+00	0.000E+00	2.727E-02	0.000E+00	3.090E-02	1.183E-03	3.065E-04	2.352E-03	0.000E+00	6.169E+00
146	0.000E+00	0.000E+00	2.871E-02	0.000E+00	3.273E-02	1.036E-03	3.237E-04	2.476E-03	0.000E+00	6.223E+00
147	0.000E+00	0.000E+00	3.386E-02	0.000E+00	3.766E-02	1.589E-03	3.711E-04	2.930E-03	0.000E+00	6.271E+00
148	0.000E+00	0.000E+00	4.413E-02	0.000E+00	4.714E-02	1.905E-03	4.834E-04	3.815E-03	0.000E+00	6.321E+00
149	0.000E+00	0.000E+00	4.488E-02	0.000E+00	4.864E-02	1.890E-03	4.956E-04	3.880E-03	0.000E+00	6.372E+00
150	0.000E+00	0.000E+00	4.323E-02	0.000E+00	4.723E-02	1.819E-03	4.790E-04	3.738E-03	0.000E+00	6.412E+00
151	0.000E+00	0.000E+00	2.966E-02	0.000E+00	3.381E-02	1.038E-03	3.344E-04	2.559E-03	0.000E+00	6.380E+00
152	0.000E+00	0.000E+00	4.308E-02	0.000E+00	4.529E-02	1.931E-03	4.706E-04	3.726E-03	0.000E+00	6.425E+00
153	0.000E+00	0.000E+00	4.814E-02	0.000E+00	5.147E-02	2.035E-03	5.290E-04	4.160E-03	0.000E+00	6.480E+00
154	0.000E+00	0.000E+00	3.003E-02	0.000E+00	3.455E-02	1.101E-03	3.401E-04	2.591E-03	0.000E+00	6.545E+00
155	0.000E+00	0.000E+00	4.594E-02	0.000E+00	5.051E-02	1.898E-03	5.108E-04	3.971E-03	0.000E+00	6.571E+00
156	0.000E+00	0.000E+00	4.319E-02	0.000E+00	4.764E-02	1.833E-03	4.817E-04	3.737E-03	0.000E+00	6.653E+00
157	0.000E+00	0.000E+00	2.030E-02	0.000E+00	2.289E-02	7.919E-04	2.284E-04	1.754E-03	0.000E+00	8.243E+00
158	0.000E+00	0.000E+00	1.847E-02	0.000E+00	1.950E-02	8.927E-04	2.022E-04	1.595E-03	0.000E+00	7.236E+00
159	0.000E+00	0.000E+00	1.113E-02	0.000E+00	1.239E-02	6.160E-04	1.241E-04	9.598E-04	0.000E+00	6.415E+00
160	0.000E+00	0.000E+00	1.479E-02	0.000E+00	1.587E-02	5.187E-04	1.619E-04	1.274E-03	0.000E+00	5.781E+00
161	0.000E+00	0.000E+00	1.458E-02	0.000E+00	1.647E-02	5.415E-04	1.639E-04	1.259E-03	0.000E+00	5.261E+00
162	0.000E+00	0.000E+00	1.454E-02	0.000E+00	1.656E-02	5.242E-04	1.640E-04	1.256E-03	0.000E+00	4.856E+00
163	0.000E+00	0.000E+00	1.591E-02	0.000E+00	1.824E-02	5.921E-04	1.802E-04	1.376E-03	0.000E+00	4.902E+00
164	0.000E+00	0.000E+00	1.666E-02	0.000E+00	1.821E-02	5.838E-04	1.841E-04	1.435E-03	0.000E+00	5.001E+00
165	0.000E+00	0.000E+00	2.499E-02	0.000E+00	2.808E-02	8.759E-04	2.798E-04	2.155E-03	0.000E+00	5.083E+00
166	0.000E+00	0.000E+00	2.667E-02	0.000E+00	3.034E-02	9.401E-04	3.004E-04	2.301E-03	0.000E+00	5.171E+00
167	0.000E+00	0.000E+00	2.244E-02	0.000E+00	2.555E-02	7.864E-04	2.529E-04	1.936E-03	0.000E+00	5.261E+00
168	0.000E+00	0.000E+00	1.454E-02	0.000E+00	1.618E-02	7.075E-04	1.620E-04	1.253E-03	0.000E+00	7.254E+00
169	0.000E+00	0.000E+00	1.216E-02	0.000E+00	1.349E-02	4.260E-04	1.353E-04	1.048E-03	0.000E+00	6.378E+00
170	0.000E+00	0.000E+00	1.568E-02	0.000E+00	1.767E-02	5.632E-04	1.759E-04	1.353E-03	0.000E+00	5.686E+00
171	0.000E+00	0.000E+00	1.540E-02	0.000E+00	1.737E-02	6.060E-04	1.733E-04	1.330E-03	0.000E+00	5.182E+00
172	0.000E+00	0.000E+00	1.692E-02	0.000E+00	1.939E-02	6.173E-04	1.915E-04	1.462E-03	0.000E+00	5.084E+00
173	0.000E+00	0.000E+00	1.761E-02	0.000E+00	1.913E-02	6.172E-04	1.940E-04	1.517E-03	0.000E+00	5.168E+00

174	0.000E+00	0.000E+00	2.486E-02	0.000E+00	2.776E-02	8.713E-04	2.775E-04	2.143E-03	0.000E+00	5.259E+00
175	0.000E+00	0.000E+00	2.391E-02	0.000E+00	2.702E-02	8.500E-04	2.685E-04	2.064E-03	0.000E+00	5.358E+00
176	0.000E+00	0.000E+00	2.506E-02	0.000E+00	2.865E-02	8.779E-04	2.829E-04	2.162E-03	0.000E+00	5.462E+00
177	0.000E+00	0.000E+00	2.665E-02	0.000E+00	3.066E-02	9.428E-04	3.019E-04	2.301E-03	0.000E+00	5.565E+00
178	0.000E+00	0.000E+00	1.732E-02	0.000E+00	1.954E-02	2.568E-03	1.949E-04	1.497E-03	0.000E+00	7.179E+00
179	0.000E+00	0.000E+00	1.325E-02	0.000E+00	1.461E-02	6.340E-04	1.470E-04	1.142E-03	0.000E+00	6.264E+00
180	0.000E+00	0.000E+00	1.785E-02	0.000E+00	2.013E-02	6.709E-04	2.006E-04	1.542E-03	0.000E+00	5.594E+00
181	0.000E+00	0.000E+00	1.747E-02	0.000E+00	2.002E-02	6.254E-04	1.976E-04	1.509E-03	0.000E+00	5.286E+00
182	0.000E+00	0.000E+00	2.247E-02	0.000E+00	2.528E-02	1.283E-03	2.517E-04	1.938E-03	0.000E+00	5.364E+00
183	0.000E+00	0.000E+00	2.416E-02	0.000E+00	2.674E-02	8.467E-04	2.685E-04	2.082E-03	0.000E+00	5.465E+00
184	0.000E+00	0.000E+00	2.164E-02	0.000E+00	2.448E-02	7.574E-04	2.431E-04	1.866E-03	0.000E+00	5.592E+00
185	0.000E+00	0.000E+00	2.822E-02	0.000E+00	3.238E-02	1.485E-03	3.191E-04	2.435E-03	0.000E+00	5.686E+00
186	0.000E+00	0.000E+00	2.752E-02	0.000E+00	3.171E-02	9.750E-04	3.120E-04	2.377E-03	0.000E+00	5.803E+00
187	0.000E+00	0.000E+00	2.586E-02	0.000E+00	2.969E-02	9.063E-04	2.926E-04	2.231E-03	0.000E+00	5.917E+00
188	0.000E+00	0.000E+00	2.274E-02	0.000E+00	2.507E-02	1.182E-03	2.523E-04	1.960E-03	0.000E+00	7.063E+00
189	0.000E+00	0.000E+00	1.473E-02	0.000E+00	1.619E-02	1.061E-03	1.633E-04	1.274E-03	0.000E+00	6.147E+00
190	0.000E+00	0.000E+00	1.732E-02	0.000E+00	1.978E-02	1.060E-03	1.955E-04	1.495E-03	0.000E+00	5.546E+00
191	0.000E+00	0.000E+00	2.446E-02	0.000E+00	2.728E-02	1.882E-03	2.729E-04	2.109E-03	0.000E+00	5.626E+00
192	0.000E+00	0.000E+00	2.542E-02	0.000E+00	2.898E-02	1.342E-03	2.867E-04	2.196E-03	0.000E+00	5.726E+00
193	0.000E+00	0.000E+00	2.598E-02	0.000E+00	2.955E-02	2.001E-03	2.926E-04	2.241E-03	0.000E+00	5.831E+00
194	0.000E+00	0.000E+00	2.995E-02	0.000E+00	3.442E-02	1.048E-03	3.389E-04	2.587E-03	0.000E+00	5.977E+00
195	0.000E+00	0.000E+00	2.729E-02	0.000E+00	3.148E-02	1.603E-03	3.096E-04	2.358E-03	0.000E+00	6.081E+00
196	0.000E+00	0.000E+00	2.701E-02	0.000E+00	3.110E-02	1.708E-03	3.067E-04	2.331E-03	0.000E+00	6.232E+00
197	0.000E+00	0.000E+00	2.394E-02	0.000E+00	2.755E-02	8.566E-04	2.713E-04	2.068E-03	0.000E+00	6.349E+00
198	0.000E+00	0.000E+00	2.775E-02	0.000E+00	3.015E-02	1.427E-03	3.057E-04	2.391E-03	0.000E+00	6.946E+00
199	0.000E+00	0.000E+00	1.660E-02	0.000E+00	1.869E-02	3.277E-03	1.860E-04	1.432E-03	0.000E+00	6.045E+00
200	0.000E+00	0.000E+00	2.606E-02	0.000E+00	2.838E-02	1.189E-03	2.874E-04	2.249E-03	0.000E+00	5.972E+00
201	0.000E+00	0.000E+00	2.739E-02	0.000E+00	3.112E-02	9.588E-04	3.083E-04	2.363E-03	0.000E+00	6.198E+00
202	0.000E+00	0.000E+00	4.267E-02	0.000E+00	4.692E-02	1.800E-03	4.749E-04	3.690E-03	0.000E+00	6.456E+00
203	0.000E+00	0.000E+00	2.625E-02	0.000E+00	3.026E-02	1.002E-03	2.983E-04	2.269E-03	0.000E+00	6.608E+00
204	0.000E+00	0.000E+00	2.152E-02	0.000E+00	2.471E-02	7.874E-04	2.438E-04	1.861E-03	0.000E+00	6.716E+00
205	0.000E+00	0.000E+00	1.965E-02	0.000E+00	2.253E-02	7.263E-04	2.221E-04	1.696E-03	0.000E+00	6.903E+00
206	0.000E+00	0.000E+00	1.695E-02	0.000E+00	1.908E-02	7.034E-04	1.903E-04	1.466E-03	0.000E+00	7.596E+00
207	0.000E+00	0.000E+00	1.564E-02	0.000E+00	1.749E-02	7.695E-04	1.753E-04	1.357E-03	0.000E+00	8.492E+00
208	0.000E+00	0.000E+00	8.260E-03	0.000E+00	9.029E-03	3.309E-04	9.127E-05	7.117E-04	0.000E+00	7.568E+00
209	0.000E+00	0.000E+00	1.042E-02	0.000E+00	1.170E-02	3.828E-04	1.168E-04	8.989E-04	0.000E+00	7.600E+00
210	0.000E+00	0.000E+00	1.159E-02	0.000E+00	1.295E-02	4.079E-04	1.294E-04	9.994E-04	0.000E+00	7.601E+00
211	0.000E+00	0.000E+00	9.806E-03	0.000E+00	1.117E-02	4.105E-04	1.112E-04	8.492E-04	0.000E+00	7.676E+00
212	0.000E+00	0.000E+00	1.302E-02	0.000E+00	1.468E-02	5.136E-04	1.466E-04	1.125E-03	0.000E+00	7.526E+00
213	0.000E+00	0.000E+00	1.509E-02	0.000E+00	1.696E-02	5.501E-04	1.692E-04	1.302E-03	0.000E+00	6.965E+00
214	0.000E+00	0.000E+00	1.198E-02	0.000E+00	1.336E-02	4.549E-04	1.337E-04	1.033E-03	0.000E+00	6.350E+00
215	0.000E+00	0.000E+00	1.528E-02	0.000E+00	1.728E-02	5.504E-04	1.717E-04	1.318E-03	0.000E+00	6.274E+00
216	0.000E+00	0.000E+00	1.457E-02	0.000E+00	1.651E-02	5.554E-04	1.638E-04	1.257E-03	0.000E+00	6.156E+00
217	0.000E+00	0.000E+00	1.545E-02	0.000E+00	1.749E-02	5.673E-04	1.737E-04	1.332E-03	0.000E+00	6.233E+00
218	0.000E+00	0.000E+00	1.377E-02	0.000E+00	1.559E-02	5.614E-04	1.549E-04	1.188E-03	0.000E+00	5.935E+00
219	0.000E+00	0.000E+00	1.806E-02	0.000E+00	2.006E-02	6.717E-04	2.014E-04	1.557E-03	0.000E+00	5.328E+00
220	0.000E+00	0.000E+00	1.077E-02	0.000E+00	1.196E-02	3.779E-04	1.199E-04	9.281E-04	0.000E+00	4.985E+00
221	0.000E+00	0.000E+00	6.431E-03	0.000E+00	7.134E-03	2.301E-04	7.161E-05	5.549E-04	0.000E+00	4.515E+00
222	0.000E+00	0.000E+00	8.667E-03	0.000E+00	9.800E-03	3.327E-04	9.759E-05	7.489E-04	0.000E+00	4.095E+00
223	0.000E+00	0.000E+00	1.013E-02	0.000E+00	1.156E-02	3.821E-04	1.145E-04	8.761E-04	0.000E+00	3.882E+00
224	0.000E+00	0.000E+00	1.097E-02	0.000E+00	1.250E-02	4.181E-04	1.240E-04	9.480E-04	0.000E+00	3.956E+00
225	0.000E+00	0.000E+00	1.114E-02	0.000E+00	1.263E-02	4.089E-04	1.254E-04	9.624E-04	0.000E+00	4.035E+00
226	0.000E+00	0.000E+00	1.260E-02	0.000E+00	1.409E-02	4.466E-04	1.408E-04	1.087E-03	0.000E+00	4.110E+00
227	0.000E+00	0.000E+00	1.193E-02	0.000E+00	1.331E-02	4.210E-04	1.331E-04	1.028E-03	0.000E+00	7.821E+00
228	0.000E+00	0.000E+00	1.033E-02	0.000E+00	1.139E-02	3.620E-04	1.146E-04	8.901E-04	0.000E+00	8.249E+00
229	0.000E+00	0.000E+00	1.036E-02	0.000E+00	1.164E-02	3.799E-04	1.161E-04	8.939E-04	0.000E+00	8.356E+00
230	0.000E+00	0.000E+00	1.240E-02	0.000E+00	1.389E-02	4.354E-04	1.386E-04	1.069E-03	0.000E+00	8.638E+00
231	0.000E+00	0.000E+00	1.076E-02	0.000E+00	1.221E-02	4.530E-04	1.218E-04	9.317E-04	0.000E+00	8.150E+00
232	0.000E+00	0.000E+00	1.436E-02	0.000E+00	1.617E-02	5.492E-04	1.614E-04	1.240E-03	0.000E+00	7.705E+00
233	0.000E+00	0.000E+00	1.572E-02	0.000E+00	1.768E-02	5.593E-04	1.761E-04	1.355E-03	0.000E+00	7.220E+00
234	0.000E+00	0.000E+00	1.379E-02	0.000E+00	1.553E-02	5.157E-04	1.546E-04	1.189E-03	0.000E+00	6.936E+00
235	0.000E+00	0.000E+00	1.540E-02	0.000E+00	1.746E-02	5.493E-04	1.732E-04	1.328E-03	0.000E+00	6.886E+00
236	0.000E+00	0.000E+00	1.614E-02	0.000E+00	1.828E-02	5.886E-04	1.816E-04	1.392E-03	0.000E+00	6.823E+00
237	0.000E+00	0.000E+00	1.432E-02	0.000E+00	1.622E-02	5.881E-04	1.611E-04	1.235E-03	0.000E+00	6.468E+00
238	0.000E+00	0.000E+00	1.815E-02	0.000E+00	2.004E-02	6.667E-04	2.017E-04	1.564E-03	0.000E+00	5.796E+00
239	0.000E+00	0.000E+00	1.066E-02	0.000E+00	1.184E-02	3.734E-04	1.186E-04	9.184E-04	0.000E+00	5.050E+00
240	0.000E+00	0.000E+00	9.459E-03	0.000E+00	1.066E-02	3.452E-04	1.062E-04	8.168E-04	0.000E+00	4.623E+00
241	0.000E+00	0.000E+00	9.934E-03	0.000E+00	1.129E-02	3.591E-04	1.119E-04	8.581E-04	0.000E+00	4.173E+00
242	0.000E+00	0.000E+00	1.173E-02	0.000E+00	1.336E-02	4.403E-04	1.325E-04	1.014E-03	0.000E+00	4.113E+00
243	0.000E+00	0.000E+00	1.150E-02	0.000E+00	1.299E-02	4.151E-04	1.292E-04	9.930E-04	0.000E+00	4.212E+00
244	0.000E+00	0.000E+00	1.444E-02	0.000E+00	1.616E-02	5.095E-04	1.613E-04	1.245E-03	0.000E+00	4.310E+00
245	0.000E+00	0.000E+00	1.609E-02	0.000E+00	1.830E-02	5.889E-04	1.814E-04	1.390E-03	0.000E+00	4.373E+00
246	0.000E+00	0.000E+00	1.002E-02	0.000E+00	1.128E-02	3.795E-04	1.126E-04	8.651E-04	0.000E+00	8.690E+00
247	0.000E+00	0.000E+00	1.224E-02	0.000E+00	1.372E-02	4.339E-04	1.369E-04	1.055E-03	0.000E+00	8.702E+00
248	0.000E+00	0.000E+00	1.235E-02	0.000E+00	1.374E-02	4.327E-04	1.376E-04	1.064E-03	0.000E+00	9.010E+00
249	0.000E+00	0.000E+00	1.012E-02	0.000E+00	1.136E-02	3.698E-04	1.134E-04	8.725E-04	0.000E+00	9.444E+00
250	0.000E+00	0.000E+00	1.328E-02	0.000E+00	1.492E-02	4.656E-04	1.487E-04	1.145E-03	0.000E+00	9.408E+00
251	0.000E+00	0.000E+00	1.164E-02	0.000E+00	1.313E-02	4.863E-04	1.313E-04	1.006E-03	0.000E+00	9.054E+00
252	0.000E+00	0.000E+00	1.612E-02	0.000E+00	1.815E-02	5.915E-04	1.809E-04	1.391E-03	0.000E+00	8.124E+00
253	0.000E+00	0.000E+00	1.544E-02	0.000E+00	1.737E-02	5.425E-04	1.730E-04	1.332E-03	0.000E+00	7.893E+00
254	0.000E+00	0.000E+00	1.674E-02	0.000E+00	1.901E-02	5.885E-04	1.884E-04	1.444E-03	0.000E+00	7.717E+00
255	0.000E+00	0.000E+00	1.657E-02	0.000E+00	1.874E-02	6.165E-04	1.864E-04	1.429E-03	0.000E+00	7.699E+00
256	0.000E+00	0.000E+00	1.489E-02	0.000E+00	1.686E-02	6.166E-04	1.674E-04	1.284E-03	0.000E+00	6.883E+00
257	0.000E+00	0.000E+00	1.784E-02	0.000E+00	1.950E-02	6.460E-04	1.972E-04	1.537E-03	0.000E+00	6.172E+00
258	0.000E+00	0.000E+00	1.077E-02	0.000E+00	1.200E-02	3.774E-04	1.200E-04	9.287E-04	0.000E+00	5.338E+00
259	0.000E+00	0.000E+00	1.080E-02	0.000E+00	1.221E-02	4.080E-04	1.216E-04	9.332E-04	0.000E+00	4.687E+00
260	0.000E+00	0.000E+00	1.205E-02	0.000E+00	1.370E-02	4.430E-04	1.359E-04	1.041E-03	0.000E+00	4.304E+00
261	0.000E+00	0.000E+00	1.161E-02	0.000E+00	1.330E-02	4.546E-04	1.316E-04	1.004E-03	0.000E+00	4.410E+00
262	0.000E+00	0.000E+00	1.679E-02	0.000E+00	1.881E-02	5.905E-04	1.877E-04	1.448E-03	0.000E+00	4.526E+00
263	0.000E+00	0.000E+00	1.768E-02	0.000E+00	2.014E-02	6.441E-04	1.994E-04	1.527E-03	0.000E+00	4.606E+00
264	0.000E+00	0.000E+00	2.072E-02	0.000E+00	2.363E-02	7.413E-04	2.338E-04	1.789E-03	0.000E+00	4.711E+00
265	0.000E+00	0.000E+00	1.290E-02	0.000E+00	1.437E-02	4.613E-04	1.439E-04	1.112E-03	0.000E+00	8.684E+00
266	0.000E+00	0.000E+00	1.177E-02	0.000E+00	1.302E-02	4.421E-04	1.308E-04	1.014E-03	0.000E+00	9.416E+00
267	0.000E+00	0.000E+00	1.147E-02	0.000E+00	1.288E-02	4.211E-04	1.284E-04	9.888E-04	0.000E+00	9.580E+00
268	0.000E+00	0.000E+00	1.376E-02	0.000E+00	1.542E-02	4.821E-04	1.538E-04	1.186E-03	0.000E+00	9.932E+00
269	0.000E+00	0.000E+00	1.146E-02	0.000E+00	1.266E-02	4.016E-04	1.273E-04	9.880E-04	0.000E+00	1.020E+01
270	0.000E+00	0.000E+00	1.423E-02	0.000E+00	1.603E-02	4.982E-04	1.594E-04	1.227E-03	0.000E+00	1.029E+01

271	0.000E+00	0.000E+00	1.268E-02	0.000E+00	1.424E-02	5.109E-04	1.426E-04	1.096E-03	0.000E+00	9.495E+00
272	0.000E+00	0.000E+00	1.829E-02	0.000E+00	2.066E-02	6.487E-04	2.054E-04	1.577E-03	0.000E+00	8.851E+00
273	0.000E+00	0.000E+00	1.818E-02	0.000E+00	2.052E-02	6.367E-04	2.039E-04	1.568E-03	0.000E+00	8.829E+00
274	0.000E+00	0.000E+00	1.602E-02	0.000E+00	1.817E-02	1.325E-03	1.802E-04	1.382E-03	0.000E+00	8.586E+00
275	0.000E+00	0.000E+00	1.546E-02	0.000E+00	1.748E-02	5.635E-04	1.738E-04	1.334E-03	0.000E+00	7.449E+00
276	0.000E+00	0.000E+00	1.708E-02	0.000E+00	1.837E-02	6.095E-04	1.872E-04	1.471E-03	0.000E+00	6.293E+00
277	0.000E+00	0.000E+00	1.112E-02	0.000E+00	1.247E-02	3.964E-04	1.244E-04	9.592E-04	0.000E+00	5.359E+00
278	0.000E+00	0.000E+00	1.310E-02	0.000E+00	1.495E-02	4.728E-04	1.479E-04	1.132E-03	0.000E+00	4.644E+00
279	0.000E+00	0.000E+00	1.359E-02	0.000E+00	1.557E-02	5.222E-04	1.540E-04	1.175E-03	0.000E+00	4.643E+00
280	0.000E+00	0.000E+00	1.997E-02	0.000E+00	2.239E-02	7.006E-04	2.234E-04	1.722E-03	0.000E+00	4.781E+00
281	0.000E+00	0.000E+00	1.928E-02	0.000E+00	2.198E-02	6.985E-04	2.175E-04	1.665E-03	0.000E+00	4.916E+00
282	0.000E+00	0.000E+00	2.307E-02	0.000E+00	2.645E-02	8.301E-04	2.610E-04	1.993E-03	0.000E+00	5.035E+00
283	0.000E+00	0.000E+00	2.042E-02	0.000E+00	2.326E-02	7.306E-04	2.302E-04	1.762E-03	0.000E+00	5.195E+00
284	0.000E+00	0.000E+00	1.309E-02	0.000E+00	1.477E-02	4.953E-04	1.472E-04	1.131E-03	0.000E+00	8.808E+00
285	0.000E+00	0.000E+00	1.402E-02	0.000E+00	1.574E-02	5.097E-04	1.571E-04	1.210E-03	0.000E+00	9.540E+00
286	0.000E+00	0.000E+00	1.432E-02	0.000E+00	1.598E-02	5.324E-04	1.599E-04	1.235E-03	0.000E+00	9.952E+00
287	0.000E+00	0.000E+00	1.327E-02	0.000E+00	1.471E-02	4.657E-04	1.476E-04	1.144E-03	0.000E+00	1.051E+01
288	0.000E+00	0.000E+00	1.383E-02	0.000E+00	1.556E-02	4.848E-04	1.549E-04	1.193E-03	0.000E+00	1.127E+01
289	0.000E+00	0.000E+00	1.449E-02	0.000E+00	1.619E-02	5.076E-04	1.618E-04	1.250E-03	0.000E+00	1.191E+01
290	0.000E+00	0.000E+00	1.519E-02	0.000E+00	1.716E-02	5.319E-04	1.705E-04	1.310E-03	0.000E+00	1.147E+01
291	0.000E+00	0.000E+00	1.469E-02	0.000E+00	1.649E-02	5.499E-04	1.647E-04	1.267E-03	0.000E+00	9.772E+00
292	0.000E+00	0.000E+00	3.146E-02	0.000E+00	3.312E-02	1.371E-03	3.438E-04	2.721E-03	0.000E+00	1.020E+01
293	0.000E+00	0.000E+00	1.890E-02	0.000E+00	2.121E-02	6.618E-04	2.114E-04	1.630E-03	0.000E+00	9.681E+00
294	0.000E+00	0.000E+00	2.390E-02	0.000E+00	2.750E-02	8.702E-04	2.709E-04	2.065E-03	0.000E+00	5.426E+00
295	0.000E+00	0.000E+00	2.334E-02	0.000E+00	2.678E-02	8.328E-04	2.641E-04	2.016E-03	0.000E+00	5.645E+00
296	0.000E+00	0.000E+00	1.976E-02	0.000E+00	2.256E-02	7.655E-04	2.236E-04	1.710E-03	0.000E+00	5.768E+00
297	0.000E+00	0.000E+00	1.037E-02	0.000E+00	1.188E-02	5.887E-04	1.179E-04	8.982E-04	0.000E+00	8.265E+00
298	0.000E+00	0.000E+00	1.193E-02	0.000E+00	1.357E-02	5.668E-04	1.349E-04	1.031E-03	0.000E+00	9.784E+00
299	0.000E+00	0.000E+00	1.338E-02	0.000E+00	1.512E-02	6.472E-04	1.506E-04	1.155E-03	0.000E+00	1.035E+01
300	0.000E+00	0.000E+00	1.493E-02	0.000E+00	1.677E-02	5.358E-04	1.672E-04	1.287E-03	0.000E+00	1.102E+01
301	0.000E+00	0.000E+00	1.611E-02	0.000E+00	1.804E-02	5.659E-04	1.801E-04	1.389E-03	0.000E+00	1.172E+01
302	0.000E+00	0.000E+00	1.537E-02	0.000E+00	1.711E-02	5.384E-04	1.713E-04	1.325E-03	0.000E+00	1.296E+01
303	0.000E+00	0.000E+00	1.669E-02	0.000E+00	1.876E-02	5.842E-04	1.868E-04	1.439E-03	0.000E+00	1.400E+01
304	0.000E+00	0.000E+00	1.615E-02	0.000E+00	1.826E-02	5.653E-04	1.813E-04	1.393E-03	0.000E+00	1.203E+01
305	0.000E+00	0.000E+00	1.888E-02	0.000E+00	2.124E-02	7.811E-04	2.116E-04	1.628E-03	0.000E+00	1.200E+01
306	0.000E+00	0.000E+00	2.222E-02	0.000E+00	2.551E-02	8.171E-04	2.517E-04	1.921E-03	0.000E+00	6.167E+00
307	0.000E+00	0.000E+00	1.892E-02	0.000E+00	2.165E-02	7.078E-04	2.137E-04	1.633E-03	0.000E+00	6.403E+00
308	0.000E+00	0.000E+00	1.714E-02	0.000E+00	1.946E-02	6.489E-04	1.933E-04	1.482E-03	0.000E+00	6.459E+00
309	0.000E+00	0.000E+00	7.619E-03	0.000E+00	8.322E-03	7.418E-04	8.416E-05	6.564E-04	0.000E+00	8.925E+00
310	0.000E+00	0.000E+00	8.507E-03	0.000E+00	9.846E-03	6.189E-04	9.732E-05	7.380E-04	0.000E+00	9.581E+00
311	0.000E+00	0.000E+00	1.029E-02	0.000E+00	1.183E-02	8.218E-04	1.173E-04	8.918E-04	0.000E+00	9.921E+00
312	0.000E+00	0.000E+00	1.163E-02	0.000E+00	1.325E-02	5.860E-04	1.318E-04	1.006E-03	0.000E+00	1.140E+01
313	0.000E+00	0.000E+00	1.307E-02	0.000E+00	1.476E-02	4.913E-04	1.470E-04	1.128E-03	0.000E+00	1.238E+01
314	0.000E+00	0.000E+00	1.547E-02	0.000E+00	1.741E-02	5.471E-04	1.734E-04	1.334E-03	0.000E+00	1.368E+01
315	0.000E+00	0.000E+00	1.830E-02	0.000E+00	2.059E-02	6.408E-04	2.050E-04	1.578E-03	0.000E+00	1.563E+01
316	0.000E+00	0.000E+00	1.836E-02	0.000E+00	2.055E-02	6.430E-04	2.052E-04	1.583E-03	0.000E+00	1.676E+01
317	0.000E+00	0.000E+00	1.950E-02	0.000E+00	2.153E-02	6.331E-04	2.165E-04	1.680E-03	0.000E+00	1.499E+01
318	0.000E+00	0.000E+00	1.712E-02	0.000E+00	1.937E-02	6.448E-04	1.927E-04	1.480E-03	0.000E+00	7.241E+00
319	0.000E+00	0.000E+00	1.488E-02	0.000E+00	1.672E-02	6.360E-04	1.676E-04	1.289E-03	0.000E+00	7.275E+00
320	0.000E+00	0.000E+00	1.085E-02	0.000E+00	1.217E-02	4.921E-04	1.224E-04	9.400E-04	0.000E+00	7.543E+00
321	0.000E+00	0.000E+00	1.574E-02	0.000E+00	1.664E-02	8.663E-04	1.712E-04	1.355E-03	0.000E+00	8.507E+00
322	0.000E+00	0.000E+00	1.603E-02	0.000E+00	1.690E-02	8.668E-04	1.742E-04	1.380E-03	0.000E+00	9.401E+00
323	0.000E+00	0.000E+00	1.632E-02	0.000E+00	1.715E-02	7.722E-04	1.771E-04	1.405E-03	0.000E+00	1.036E+01
324	0.000E+00	0.000E+00	1.658E-02	0.000E+00	1.737E-02	6.219E-04	1.796E-04	1.427E-03	0.000E+00	1.087E+01
325	0.000E+00	0.000E+00	1.677E-02	0.000E+00	1.751E-02	5.884E-04	1.814E-04	1.443E-03	0.000E+00	1.242E+01
326	0.000E+00	0.000E+00	1.684E-02	0.000E+00	1.802E-02	5.909E-04	1.818E-04	1.449E-03	0.000E+00	1.443E+01
327	0.000E+00	0.000E+00	1.919E-02	0.000E+00	2.136E-02	6.722E-04	2.139E-04	1.655E-03	0.000E+00	1.657E+01
328	0.000E+00	0.000E+00	2.203E-02	0.000E+00	2.448E-02	7.714E-04	2.453E-04	1.898E-03	0.000E+00	2.240E+01
329	0.000E+00	0.000E+00	2.487E-02	0.000E+00	2.749E-02	8.712E-04	2.762E-04	2.143E-03	0.000E+00	2.231E+01
330	0.000E+00	0.000E+00	1.211E-02	0.000E+00	1.363E-02	5.075E-04	1.357E-04	1.045E-03	0.000E+00	8.794E+00
331	0.000E+00	0.000E+00	1.191E-02	0.000E+00	1.334E-02	4.182E-04	1.332E-04	1.027E-03	0.000E+00	8.920E+00
332	0.000E+00	0.000E+00	1.206E-02	0.000E+00	1.350E-02	4.279E-04	1.348E-04	1.040E-03	0.000E+00	8.468E+00
333	0.000E+00	0.000E+00	4.041E-02	0.000E+00	4.511E-02	1.416E-03	4.510E-04	3.484E-03	0.000E+00	8.282E+00
334	0.000E+00	0.000E+00	4.216E-02	0.000E+00	4.715E-02	1.476E-03	4.709E-04	3.635E-03	0.000E+00	8.885E+00
335	0.000E+00	0.000E+00	4.400E-02	0.000E+00	4.932E-02	1.541E-03	4.920E-04	3.794E-03	0.000E+00	9.650E+00
336	0.000E+00	0.000E+00	4.590E-02	0.000E+00	5.154E-02	1.607E-03	5.137E-04	3.958E-03	0.000E+00	1.072E+01
337	0.000E+00	0.000E+00	4.776E-02	0.000E+00	5.370E-02	1.672E-03	5.349E-04	4.118E-03	0.000E+00	1.236E+01
338	0.000E+00	0.000E+00	4.933E-02	0.000E+00	5.551E-02	1.727E-03	5.526E-04	4.253E-03	0.000E+00	1.481E+01
339	0.000E+00	0.000E+00	5.012E-02	0.000E+00	5.638E-02	1.755E-03	5.613E-04	4.321E-03	0.000E+00	1.748E+01
340	0.000E+00	0.000E+00	4.898E-02	0.000E+00	5.488E-02	1.715E-03	5.475E-04	4.222E-03	0.000E+00	2.313E+01
341	0.000E+00	0.000E+00	1.571E-02	0.000E+00	1.308E-02	1.570E-03	1.321E-04	1.329E-03	0.000E+00	1.086E+01
342	0.000E+00	0.000E+00	1.339E-02	0.000E+00	1.505E-02	4.816E-04	1.500E-04	1.156E-03	0.000E+00	1.127E+01
343	0.000E+00	0.000E+00	1.358E-02	0.000E+00	1.533E-02	5.175E-04	1.527E-04	1.173E-03	0.000E+00	1.106E+01
344	0.000E+00	0.000E+00	1.255E-02	0.000E+00	1.420E-02	5.107E-04	1.416E-04	1.086E-03	0.000E+00	1.021E+01
345	0.000E+00	0.000E+00	1.091E-02	0.000E+00	1.239E-02	4.680E-04	1.236E-04	9.455E-04	0.000E+00	9.505E+00
346	0.000E+00	0.000E+00	4.712E-02	0.000E+00	5.290E-02	1.780E-03	5.285E-04	4.063E-03	0.000E+00	8.474E+00
347	0.000E+00	0.000E+00	4.753E-02	0.000E+00	5.333E-02	1.809E-03	5.330E-04	4.098E-03	0.000E+00	8.832E+00
348	0.000E+00	0.000E+00	4.786E-02	0.000E+00	5.366E-02	1.720E-03	5.356E-04	4.126E-03	0.000E+00	8.582E+00
349	0.000E+00	0.000E+00	4.819E-02	0.000E+00	5.402E-02	1.720E-03	5.391E-04	4.155E-03	0.000E+00	8.059E+00
350	0.000E+00	0.000E+00	4.870E-02	0.000E+00	5.458E-02	1.726E-03	5.447E-04	4.199E-03	0.000E+00	1.127E+01
351	0.000E+00	0.000E+00	4.963E-02	0.000E+00	5.563E-02	1.747E-03	5.550E-04	4.279E-03	0.000E+00	1.294E+01
352	0.000E+00	0.000E+00	5.126E-02	0.000E+00	5.747E-02	1.797E-03	5.732E-04	4.420E-03	0.000E+00	1.469E+01
353	0.000E+00	0.000E+00	5.360E-02	0.000E+00	5.996E-02	1.877E-03	5.987E-04	4.621E-03	0.000E+00	2.185E+01
354	0.000E+00	0.000E+00	1.500E-02	0.000E+00	1.324E-02	5.366E-04	1.333E-04	1.268E-03	0.000E+00	1.568E+01
355	0.000E+00	0.000E+00	1.098E-02	0.000E+00	1.099E-02	3.962E-04	1.098E-04	9.291E-04	0.000E+00	1.386E+01
356	0.000E+00	0.000E+00	9.124E-03	0.000E+00	9.893E-03	3.593E-04	9.849E-05	7.727E-04	0.000E+00	1.269E+01
357	0.000E+00	0.000E+00	8.008E-03	0.000E+00	9.129E-03	3.322E-04	9.077E-05	6.932E-04	0.000E+00	1.152E+01
358	0.000E+00	0.000E+00	7.468E-03	0.000E+00	8.520E-03	3.097E-04	8.468E-05	6.464E-04	0.000E+00	1.059E+01
359	0.000E+00	0.000E+00	3.652E-02	0.000E+00	4.190E-02	1.408E-03	4.142E-04	3.151E-03	0.000E+00	8.613E+00
360	0.000E+00	0.000E+00	3.641E-02	0.000E+00	4.187E-02	1.419E-03	4.136E-04	3.141E-03	0.000E+00	9.352E+00
361	0.000E+00	0.000E+00	3.618E-02	0.000E+00	4.172E-02	1.694E-03	4.142E-04	3.122E-03	0.000E+00	1.013E+01
362	0.000E+00	0.000E+00	3.577E-02	0.000E+00	4.137E-02	1.733E-03	4.107E-04	3.087E-03	0.000E+00	1.098E+01
363	0.000E+00	0.000E+00	3.514E-02	0.000E+00	4.077E-02	1.772E-03	4.047E-04	3.032E-03	0.000E+00	1.198E+01
364	0.000E+00	0.000E+00	3.437E-02	0.000E+00	4.003E-02	1.805E-03	3.973E-04	2.967E-03	0.000E+00	1.332E+01
365	0.000E+00	0.000E+00	3.362E-02	0.000E+00	3.930E-02	1.788E-03	3.895E-04	2.902E-03	0.000E+00	1.526E+01
366	0.000E+00	0.000E+00	3.275E-02	0.000E+00	3.845E-02	1.599E-03	3.789E-04	2.827E-03	0.000E+00	1.819E+01
367	0.000E+00	0.000E+00	3.332E-02	0.000E+00	3.921E-02	1.268E-03	3.825E-04	2.877E-03	0.000E+00	2.401E+01

368	0.000E+00	0.000E+00	2.839E-02	0.000E+00	3.236E-02	9.937E-04	3.200E-04	2.449E-03	0.000E+00	3.271E+01
369	0.000E+00	0.000E+00	1.597E-02	0.000E+00	1.727E-02	5.597E-04	1.754E-04	1.375E-03	0.000E+00	2.132E+01
370	0.000E+00	0.000E+00	1.247E-02	0.000E+00	1.020E-02	4.450E-04	1.011E-04	1.056E-03	0.000E+00	1.713E+01
371	0.000E+00	0.000E+00	1.078E-02	0.000E+00	1.189E-02	3.777E-04	1.196E-04	9.291E-04	0.000E+00	1.473E+01
372	0.000E+00	0.000E+00	1.002E-02	0.000E+00	1.099E-02	3.510E-04	1.108E-04	8.632E-04	0.000E+00	1.315E+01
373	0.000E+00	0.000E+00	9.045E-03	0.000E+00	1.009E-02	3.258E-04	1.007E-04	7.794E-04	0.000E+00	1.195E+01
374	0.000E+00	0.000E+00	8.275E-03	0.000E+00	9.259E-03	2.987E-04	9.253E-05	7.138E-04	0.000E+00	1.093E+01
375	0.000E+00	0.000E+00	1.060E-02	0.000E+00	1.198E-02	4.190E-04	1.193E-04	9.153E-04	0.000E+00	6.777E+00
376	0.000E+00	0.000E+00	1.138E-02	0.000E+00	1.290E-02	4.303E-04	1.282E-04	9.829E-04	0.000E+00	6.794E+00
377	0.000E+00	0.000E+00	1.184E-02	0.000E+00	1.346E-02	1.259E-03	1.336E-04	1.024E-03	0.000E+00	6.698E+00
378	0.000E+00	0.000E+00	1.185E-02	0.000E+00	1.349E-02	1.341E-03	1.339E-04	1.025E-03	0.000E+00	7.931E+00
379	0.000E+00	0.000E+00	1.109E-02	0.000E+00	1.264E-02	1.245E-03	1.257E-04	9.604E-04	0.000E+00	1.085E+01
380	0.000E+00	0.000E+00	1.070E-02	0.000E+00	1.196E-02	5.299E-04	1.198E-04	9.253E-04	0.000E+00	1.320E+01
381	0.000E+00	0.000E+00	1.458E-02	0.000E+00	1.670E-02	7.110E-04	1.647E-04	1.258E-03	0.000E+00	1.523E+01
382	0.000E+00	0.000E+00	1.673E-02	0.000E+00	1.931E-02	6.047E-04	1.899E-04	1.447E-03	0.000E+00	1.824E+01
383	0.000E+00	0.000E+00	4.413E-02	0.000E+00	5.067E-02	1.544E-03	4.993E-04	3.808E-03	0.000E+00	2.334E+01
384	0.000E+00	0.000E+00	5.353E-02	0.000E+00	6.098E-02	1.877E-03	6.034E-04	4.618E-03	0.000E+00	2.541E+01
385	0.000E+00	0.000E+00	4.626E-02	0.000E+00	5.250E-02	1.622E-03	5.203E-04	3.989E-03	0.000E+00	3.226E+01
386	0.000E+00	0.000E+00	3.287E-02	0.000E+00	3.754E-02	1.150E-03	3.708E-04	2.835E-03	0.000E+00	3.139E+01
387	0.000E+00	0.000E+00	2.042E-02	0.000E+00	2.324E-02	7.147E-04	2.300E-04	1.761E-03	0.000E+00	3.157E+01
388	0.000E+00	0.000E+00	1.848E-02	0.000E+00	2.067E-02	6.470E-04	2.064E-04	1.593E-03	0.000E+00	2.155E+01
389	0.000E+00	0.000E+00	1.972E-02	0.000E+00	2.205E-02	6.906E-04	2.202E-04	1.700E-03	0.000E+00	1.711E+01
390	0.000E+00	0.000E+00	9.125E-03	0.000E+00	7.459E-03	3.256E-04	7.628E-05	7.731E-04	0.000E+00	1.465E+01
391	0.000E+00	0.000E+00	8.529E-03	0.000E+00	7.622E-03	3.043E-04	7.550E-05	7.228E-04	0.000E+00	1.274E+01
392	0.000E+00	0.000E+00	8.002E-03	0.000E+00	8.407E-03	2.909E-04	8.340E-05	6.782E-04	0.000E+00	1.149E+01
393	0.000E+00	0.000E+00	7.726E-03	0.000E+00	8.770E-03	2.970E-04	8.717E-05	6.675E-04	0.000E+00	1.084E+01
394	0.000E+00	0.000E+00	9.694E-03	0.000E+00	1.103E-02	3.930E-04	1.095E-04	8.386E-04	0.000E+00	8.299E+00
395	0.000E+00	0.000E+00	8.838E-03	0.000E+00	1.007E-02	4.372E-04	9.992E-05	7.651E-04	0.000E+00	8.454E+00
396	0.000E+00	0.000E+00	8.070E-03	0.000E+00	9.088E-03	7.942E-04	9.074E-05	6.975E-04	0.000E+00	9.625E+00
397	0.000E+00	0.000E+00	9.182E-03	0.000E+00	1.037E-02	1.408E-03	1.034E-04	7.944E-04	0.000E+00	1.038E+01
398	0.000E+00	0.000E+00	9.817E-03	0.000E+00	1.121E-02	1.164E-03	1.108E-04	8.475E-04	0.000E+00	9.173E+00
399	0.000E+00	0.000E+00	1.442E-02	0.000E+00	1.654E-02	1.019E-03	1.632E-04	1.246E-03	0.000E+00	1.207E+01
400	0.000E+00	0.000E+00	1.279E-02	0.000E+00	1.469E-02	5.981E-04	1.453E-04	1.108E-03	0.000E+00	1.276E+01
401	0.000E+00	0.000E+00	2.043E-02	0.000E+00	2.297E-02	7.155E-04	2.289E-04	1.762E-03	0.000E+00	1.283E+01
402	0.000E+00	0.000E+00	4.390E-02	0.000E+00	4.958E-02	1.537E-03	4.928E-04	3.786E-03	0.000E+00	1.192E+01
403	0.000E+00	0.000E+00	5.316E-02	0.000E+00	6.065E-02	2.188E-03	6.019E-04	4.585E-03	0.000E+00	1.202E+01
404	0.000E+00	0.000E+00	4.104E-02	0.000E+00	4.645E-02	1.459E-03	4.612E-04	3.539E-03	0.000E+00	1.737E+01
405	0.000E+00	0.000E+00	2.842E-02	0.000E+00	3.238E-02	9.946E-04	3.202E-04	2.451E-03	0.000E+00	1.853E+01
406	0.000E+00	0.000E+00	1.684E-02	0.000E+00	1.908E-02	5.895E-04	1.893E-04	1.452E-03	0.000E+00	1.776E+01
407	0.000E+00	0.000E+00	1.585E-02	0.000E+00	1.801E-02	5.546E-04	1.783E-04	1.367E-03	0.000E+00	1.720E+01
408	0.000E+00	0.000E+00	1.617E-02	0.000E+00	1.816E-02	5.662E-04	1.809E-04	1.394E-03	0.000E+00	1.701E+01
409	0.000E+00	0.000E+00	1.713E-02	0.000E+00	1.919E-02	5.997E-04	1.914E-04	1.476E-03	0.000E+00	1.446E+01
410	0.000E+00	0.000E+00	7.590E-03	0.000E+00	6.634E-03	2.707E-04	6.775E-05	6.433E-04	0.000E+00	1.271E+01
411	0.000E+00	0.000E+00	7.402E-03	0.000E+00	6.749E-03	2.641E-04	6.887E-05	6.273E-04	0.000E+00	1.167E+01
412	0.000E+00	0.000E+00	7.019E-03	0.000E+00	6.613E-03	2.504E-04	6.601E-05	5.948E-04	0.000E+00	1.050E+01
413	0.000E+00	0.000E+00	1.312E-02	0.000E+00	1.502E-02	1.458E-03	1.485E-04	1.134E-03	0.000E+00	9.642E+00
414	0.000E+00	0.000E+00	8.640E-03	0.000E+00	9.836E-03	1.317E-03	9.792E-05	7.481E-04	0.000E+00	7.932E+00
415	0.000E+00	0.000E+00	9.822E-03	0.000E+00	1.038E-02	1.101E-03	1.073E-04	8.508E-04	0.000E+00	6.655E+00
416	0.000E+00	0.000E+00	1.035E-02	0.000E+00	1.183E-02	8.224E-04	1.174E-04	8.962E-04	0.000E+00	9.259E+00
417	0.000E+00	0.000E+00	7.875E-03	0.000E+00	8.002E-03	9.093E-04	8.466E-05	6.827E-04	0.000E+00	7.495E+00
418	0.000E+00	0.000E+00	1.187E-02	0.000E+00	1.323E-02	9.349E-04	1.324E-04	1.023E-03	0.000E+00	6.566E+00
419	0.000E+00	0.000E+00	9.039E-03	0.000E+00	9.875E-03	7.668E-04	9.988E-05	7.788E-04	0.000E+00	9.180E+00
420	0.000E+00	0.000E+00	2.169E-02	0.000E+00	2.391E-02	8.714E-04	2.406E-04	1.869E-03	0.000E+00	7.436E+00
421	0.000E+00	0.000E+00	3.331E-02	0.000E+00	3.778E-02	1.204E-03	3.750E-04	2.878E-03	0.000E+00	6.928E+00
422	0.000E+00	0.000E+00	3.558E-02	0.000E+00	4.002E-02	1.249E-03	3.985E-04	3.069E-03	0.000E+00	9.765E+00
423	0.000E+00	0.000E+00	3.337E-02	0.000E+00	3.799E-02	1.355E-03	3.776E-04	2.886E-03	0.000E+00	8.290E+00
424	0.000E+00	0.000E+00	3.265E-02	0.000E+00	3.670E-02	1.146E-03	3.657E-04	2.817E-03	0.000E+00	7.449E+00
425	0.000E+00	0.000E+00	4.793E-02	0.000E+00	5.470E-02	1.681E-03	5.407E-04	4.144E-03	0.000E+00	1.004E+01
426	0.000E+00	0.000E+00	4.599E-02	0.000E+00	5.264E-02	1.746E-03	5.208E-04	3.991E-03	0.000E+00	8.729E+00
427	0.000E+00	0.000E+00	4.400E-02	0.000E+00	4.988E-02	1.817E-03	4.955E-04	3.795E-03	0.000E+00	7.742E+00
428	0.000E+00	0.000E+00	5.173E-02	0.000E+00	5.898E-02	2.275E-03	5.877E-04	4.462E-03	0.000E+00	1.005E+01
429	0.000E+00	0.000E+00	4.943E-02	0.000E+00	5.628E-02	2.183E-03	5.612E-04	4.263E-03	0.000E+00	8.755E+00
430	0.000E+00	0.000E+00	4.689E-02	0.000E+00	5.332E-02	2.020E-03	5.315E-04	4.044E-03	0.000E+00	7.929E+00
431	0.000E+00	0.000E+00	3.830E-02	0.000E+00	4.336E-02	1.375E-03	4.306E-04	3.303E-03	0.000E+00	1.110E+01
432	0.000E+00	0.000E+00	3.627E-02	0.000E+00	4.109E-02	1.307E-03	4.079E-04	3.128E-03	0.000E+00	8.533E+00
433	0.000E+00	0.000E+00	3.404E-02	0.000E+00	3.856E-02	1.230E-03	3.828E-04	2.935E-03	0.000E+00	7.705E+00
434	0.000E+00	0.000E+00	2.375E-02	0.000E+00	2.684E-02	8.312E-04	2.666E-04	2.048E-03	0.000E+00	1.422E+01
435	0.000E+00	0.000E+00	1.991E-02	0.000E+00	2.228E-02	6.973E-04	2.224E-04	1.717E-03	0.000E+00	1.126E+01
436	0.000E+00	0.000E+00	1.694E-02	0.000E+00	1.874E-02	5.935E-04	1.882E-04	1.460E-03	0.000E+00	8.968E+00
437	0.000E+00	0.000E+00	1.599E-02	0.000E+00	1.809E-02	5.596E-04	1.796E-04	1.379E-03	0.000E+00	1.450E+01
438	0.000E+00	0.000E+00	1.370E-02	0.000E+00	1.540E-02	4.917E-04	1.535E-04	1.182E-03	0.000E+00	1.171E+01
439	0.000E+00	0.000E+00	1.118E-02	0.000E+00	1.245E-02	4.903E-04	1.256E-04	9.646E-04	0.000E+00	1.035E+01
440	0.000E+00	0.000E+00	1.431E-02	0.000E+00	1.620E-02	5.010E-04	1.608E-04	1.234E-03	0.000E+00	1.359E+01
441	0.000E+00	0.000E+00	1.640E-02	0.000E+00	1.861E-02	5.741E-04	1.845E-04	1.415E-03	0.000E+00	1.218E+01
442	0.000E+00	0.000E+00	1.616E-02	0.000E+00	1.831E-02	5.660E-04	1.816E-04	1.394E-03	0.000E+00	1.021E+01
443	0.000E+00	0.000E+00	1.352E-02	0.000E+00	1.532E-02	5.964E-04	1.520E-04	1.166E-03	0.000E+00	1.380E+01
444	0.000E+00	0.000E+00	1.312E-02	0.000E+00	1.488E-02	6.000E-04	1.475E-04	1.131E-03	0.000E+00	1.167E+01
445	0.000E+00	0.000E+00	1.121E-02	0.000E+00	1.263E-02	3.940E-04	1.257E-04	9.664E-04	0.000E+00	1.048E+01
446	0.000E+00	0.000E+00	1.175E-02	0.000E+00	1.307E-02	4.116E-04	1.309E-04	1.012E-03	0.000E+00	1.314E+01
447	0.000E+00	0.000E+00	1.205E-02	0.000E+00	1.360E-02	4.227E-04	1.352E-04	1.039E-03	0.000E+00	1.151E+01
448	0.000E+00	0.000E+00	1.117E-02	0.000E+00	1.261E-02	4.045E-04	1.255E-04	9.635E-04	0.000E+00	1.035E+01
449	0.000E+00	0.000E+00	1.475E-02	0.000E+00	1.653E-02	5.166E-04	1.649E-04	1.272E-03	0.000E+00	1.281E+01
450	0.000E+00	0.000E+00	1.239E-02	0.000E+00	1.393E-02	4.345E-04	1.387E-04	1.068E-03	0.000E+00	1.140E+01
451	0.000E+00	0.000E+00	1.028E-02	0.000E+00	1.154E-02	3.612E-04	1.150E-04	8.865E-04	0.000E+00	1.045E+01

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00

*** PREDICTED PEAK 1-HOUR CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

ECEPTOR	Pb	Mn	Hg	Ni	NAPTH	PAH	PROPL	Se	TOL	XYLEN
1	8.597E-03	2.296E-02	0.000E+00	7.600E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2	6.406E-03	1.708E-02	0.000E+00	5.664E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	6.530E-03	1.740E-02	0.000E+00	5.773E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	1.103E-02	2.936E-02	0.000E+00	9.725E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	1.067E-02	2.840E-02	0.000E+00	9.408E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6	1.041E-02	2.770E-02	0.000E+00	9.174E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7	8.101E-03	2.152E-02	0.000E+00	7.147E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8	7.874E-03	2.099E-02	0.000E+00	6.960E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9	8.225E-03	2.189E-02	0.000E+00	7.266E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
10	1.255E-02	3.357E-02	0.000E+00	1.111E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
11	7.160E-03	1.908E-02	0.000E+00	6.318E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
12	1.660E-02	4.415E-02	0.000E+00	1.463E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
13	3.314E-02	8.809E-02	0.000E+00	2.919E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
14	3.414E-02	9.074E-02	0.000E+00	3.007E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
15	3.454E-02	9.176E-02	0.000E+00	3.041E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
16	3.505E-02	9.310E-02	0.000E+00	3.085E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
17	1.185E-02	3.159E-02	0.000E+00	1.046E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
18	9.280E-03	2.471E-02	0.000E+00	8.185E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
19	1.046E-02	2.786E-02	0.000E+00	9.225E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
20	1.076E-02	2.866E-02	0.000E+00	9.491E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
21	2.650E-02	7.189E-02	0.000E+00	2.371E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
22	2.468E-02	6.686E-02	0.000E+00	2.206E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
23	2.878E-02	7.741E-02	0.000E+00	2.558E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
24	3.705E-02	9.911E-02	0.000E+00	3.279E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
25	3.884E-02	1.039E-01	0.000E+00	3.437E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
26	3.418E-02	9.087E-02	0.000E+00	3.011E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
27	2.578E-02	6.790E-02	0.000E+00	2.254E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
28	2.641E-02	7.049E-02	0.000E+00	2.334E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
29	4.121E-02	1.103E-01	0.000E+00	3.650E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
30	4.707E-02	1.257E-01	0.000E+00	4.160E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
31	4.497E-02	1.199E-01	0.000E+00	3.970E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
32	3.719E-02	9.899E-02	0.000E+00	3.279E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
33	3.502E-02	9.299E-02	0.000E+00	3.082E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
34	3.538E-02	9.402E-02	0.000E+00	3.115E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
35	2.435E-02	6.496E-02	0.000E+00	2.151E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
36	2.003E-02	5.339E-02	0.000E+00	1.768E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
37	2.174E-02	5.772E-02	0.000E+00	1.913E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
38	1.111E-02	2.963E-02	0.000E+00	9.811E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
39	1.199E-02	3.196E-02	0.000E+00	1.058E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
40	1.300E-02	3.468E-02	0.000E+00	1.148E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
41	1.670E-02	4.456E-02	0.000E+00	1.475E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
42	1.728E-02	4.628E-02	0.000E+00	1.531E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
43	9.188E-03	2.477E-02	0.000E+00	8.181E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
44	6.497E-03	1.767E-02	0.000E+00	5.759E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
45	8.256E-03	2.217E-02	0.000E+00	7.330E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
46	7.759E-03	2.092E-02	0.000E+00	6.911E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
47	8.748E-03	2.673E-02	0.000E+00	8.481E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
48	1.145E-02	3.073E-02	0.000E+00	1.018E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
49	9.307E-03	2.529E-02	0.000E+00	8.380E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
50	1.102E-02	2.989E-02	0.000E+00	9.931E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
51	1.080E-02	2.902E-02	0.000E+00	9.659E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
52	9.114E-03	2.445E-02	0.000E+00	8.128E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
53	7.161E-03	1.926E-02	0.000E+00	6.367E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
54	7.514E-03	2.024E-02	0.000E+00	6.700E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
55	9.208E-03	2.461E-02	0.000E+00	8.193E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
56	1.060E-02	2.836E-02	0.000E+00	9.431E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
57	1.165E-02	3.102E-02	0.000E+00	1.029E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
58	1.252E-02	3.325E-02	0.000E+00	1.102E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
59	1.380E-02	3.660E-02	0.000E+00	1.216E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
60	1.614E-02	4.278E-02	0.000E+00	1.421E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
61	2.867E-02	7.678E-02	0.000E+00	2.550E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
62	3.124E-02	8.404E-02	0.000E+00	2.788E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
63	2.078E-02	5.520E-02	0.000E+00	1.833E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
64	1.877E-02	4.998E-02	0.000E+00	1.655E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
65	1.434E-02	4.152E-02	0.000E+00	1.366E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
66	1.631E-02	4.385E-02	0.000E+00	1.453E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
67	1.375E-02	3.724E-02	0.000E+00	1.229E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
68	1.252E-02	3.409E-02	0.000E+00	1.124E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
69	1.855E-02	4.999E-02	0.000E+00	1.651E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
70	2.204E-02	5.915E-02	0.000E+00	1.956E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
71	3.069E-02	8.412E-02	0.000E+00	2.785E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
72	1.695E-02	4.527E-02	0.000E+00	1.498E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
73	1.142E-02	3.062E-02	0.000E+00	1.013E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
74	1.436E-02	3.830E-02	0.000E+00	1.271E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
75	1.134E-02	3.029E-02	0.000E+00	1.004E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
76	1.162E-02	3.110E-02	0.000E+00	1.029E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
77	1.283E-02	3.428E-02	0.000E+00	1.135E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
78	1.267E-02	3.373E-02	0.000E+00	1.117E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
79	1.419E-02	3.777E-02	0.000E+00	1.251E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
80	1.464E-02	3.901E-02	0.000E+00	1.292E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
81	1.354E-02	3.623E-02	0.000E+00	1.199E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
82	1.288E-02	3.464E-02	0.000E+00	1.145E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
83	1.432E-02	3.854E-02	0.000E+00	1.273E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
84	1.483E-02	3.991E-02	0.000E+00	1.319E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
85	2.044E-02	5.502E-02	0.000E+00	1.818E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
86	4.286E-02	1.158E-01	0.000E+00	3.823E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
87	3.885E-02	1.046E-01	0.000E+00	3.455E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
88	3.755E-02	1.007E-01	0.000E+00	3.329E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
89	3.629E-02	9.707E-02	0.000E+00	3.212E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
90	3.222E-02	8.615E-02	0.000E+00	2.851E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

91	1.131E-02	3.021E-02	0.000E+00	1.002E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
92	1.174E-02	3.133E-02	0.000E+00	1.040E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
93	1.124E-02	3.002E-02	0.000E+00	9.962E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
94	1.166E-02	3.096E-02	0.000E+00	1.027E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
95	1.242E-02	3.296E-02	0.000E+00	1.094E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
96	1.264E-02	3.388E-02	0.000E+00	1.121E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
97	1.507E-02	4.022E-02	0.000E+00	1.332E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
98	1.711E-02	4.592E-02	0.000E+00	1.518E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
99	1.467E-02	3.900E-02	0.000E+00	1.294E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
100	1.559E-02	4.175E-02	0.000E+00	1.381E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
101	1.441E-02	3.841E-02	0.000E+00	1.272E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
102	1.624E-02	4.321E-02	0.000E+00	1.434E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
103	1.156E-02	3.091E-02	0.000E+00	1.026E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
104	1.097E-02	2.934E-02	0.000E+00	9.742E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
105	1.159E-02	3.078E-02	0.000E+00	1.021E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
106	1.263E-02	3.353E-02	0.000E+00	1.113E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
107	1.400E-02	3.751E-02	0.000E+00	1.241E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
108	1.571E-02	4.197E-02	0.000E+00	1.390E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
109	1.678E-02	4.468E-02	0.000E+00	1.481E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
110	1.637E-02	4.351E-02	0.000E+00	1.444E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
111	1.381E-02	3.667E-02	0.000E+00	1.219E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
112	1.560E-02	4.156E-02	0.000E+00	1.376E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
113	1.792E-02	4.762E-02	0.000E+00	1.578E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
114	1.873E-02	4.972E-02	0.000E+00	1.650E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
115	1.056E-02	2.832E-02	0.000E+00	9.405E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
116	1.143E-02	3.038E-02	0.000E+00	1.008E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
117	1.276E-02	3.388E-02	0.000E+00	1.124E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
118	1.489E-02	3.993E-02	0.000E+00	1.321E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
119	1.743E-02	4.660E-02	0.000E+00	1.543E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
120	1.841E-02	4.905E-02	0.000E+00	1.626E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
121	1.741E-02	4.630E-02	0.000E+00	1.536E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
122	1.537E-02	4.083E-02	0.000E+00	1.357E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
123	1.665E-02	4.434E-02	0.000E+00	1.469E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
124	1.860E-02	4.943E-02	0.000E+00	1.638E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
125	1.941E-02	5.152E-02	0.000E+00	1.710E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
126	2.019E-02	5.355E-02	0.000E+00	1.778E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
127	1.120E-02	2.980E-02	0.000E+00	9.879E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
128	1.281E-02	3.404E-02	0.000E+00	1.129E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
129	1.536E-02	4.127E-02	0.000E+00	1.364E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
130	1.703E-02	4.565E-02	0.000E+00	1.513E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
131	1.547E-02	4.138E-02	0.000E+00	1.372E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
132	1.907E-02	5.071E-02	0.000E+00	1.683E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
133	1.663E-02	4.416E-02	0.000E+00	1.467E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
134	1.696E-02	4.518E-02	0.000E+00	1.496E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
135	1.847E-02	4.911E-02	0.000E+00	1.627E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
136	2.535E-02	6.870E-02	0.000E+00	2.278E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
137	2.140E-02	5.694E-02	0.000E+00	1.890E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
138	2.188E-02	5.924E-02	0.000E+00	1.966E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
139	1.281E-02	3.412E-02	0.000E+00	1.132E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
140	1.526E-02	4.119E-02	0.000E+00	1.360E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
141	1.746E-02	4.698E-02	0.000E+00	1.556E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
142	1.828E-02	5.230E-02	0.000E+00	1.721E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
143	1.703E-02	4.837E-02	0.000E+00	1.594E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
144	1.699E-02	4.517E-02	0.000E+00	1.501E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
145	1.803E-02	4.801E-02	0.000E+00	1.590E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
146	1.907E-02	5.069E-02	0.000E+00	1.679E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
147	2.191E-02	5.811E-02	0.000E+00	1.929E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
148	2.773E-02	7.518E-02	0.000E+00	2.491E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
149	2.859E-02	7.714E-02	0.000E+00	2.558E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
150	2.770E-02	7.457E-02	0.000E+00	2.474E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
151	1.970E-02	5.237E-02	0.000E+00	1.735E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
152	2.687E-02	7.307E-02	0.000E+00	2.422E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
153	3.042E-02	8.232E-02	0.000E+00	2.728E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
154	2.009E-02	5.326E-02	0.000E+00	1.766E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
155	2.965E-02	7.956E-02	0.000E+00	2.640E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
156	2.795E-02	7.496E-02	0.000E+00	2.489E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
157	1.337E-02	3.564E-02	0.000E+00	1.183E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
158	1.156E-02	3.143E-02	0.000E+00	1.040E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
159	7.259E-03	1.943E-02	0.000E+00	6.428E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
160	9.374E-03	2.536E-02	0.000E+00	8.369E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
161	9.617E-03	2.563E-02	0.000E+00	8.497E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
162	9.649E-03	2.566E-02	0.000E+00	8.518E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
163	1.061E-02	2.817E-02	0.000E+00	9.356E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
164	1.071E-02	2.883E-02	0.000E+00	9.526E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
165	1.641E-02	4.382E-02	0.000E+00	1.451E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
166	1.769E-02	4.704E-02	0.000E+00	1.559E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
167	1.489E-02	3.960E-02	0.000E+00	1.312E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
168	9.476E-03	2.537E-02	0.000E+00	8.392E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
169	7.910E-03	2.119E-02	0.000E+00	7.009E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
170	1.032E-02	2.752E-02	0.000E+00	9.123E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
171	1.014E-02	2.705E-02	0.000E+00	8.968E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
172	1.129E-02	2.995E-02	0.000E+00	9.946E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
173	1.127E-02	3.039E-02	0.000E+00	1.004E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
174	1.625E-02	4.346E-02	0.000E+00	1.438E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
175	1.577E-02	4.203E-02	0.000E+00	1.393E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
176	1.668E-02	4.430E-02	0.000E+00	1.468E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
177	1.783E-02	4.726E-02	0.000E+00	1.568E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
178	1.141E-02	3.042E-02	0.000E+00	1.009E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
179	8.575E-03	2.302E-02	0.000E+00	7.610E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
180	1.175E-02	3.134E-02	0.000E+00	1.040E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
181	1.165E-02	3.092E-02	0.000E+00	1.026E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
182	1.477E-02	3.941E-02	0.000E+00	1.305E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
183	1.568E-02	4.205E-02	0.000E+00	1.391E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
184	1.429E-02	3.806E-02	0.000E+00	1.261E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
185	1.884E-02	4.998E-02	0.000E+00	1.657E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
186	1.843E-02	4.884E-02	0.000E+00	1.621E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
187	1.727E-02	4.581E-02	0.000E+00	1.519E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

188	1.472E-02	3.950E-02	0.000E+00	1.306E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
189	9.513E-03	2.555E-02	0.000E+00	8.476E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
190	1.152E-02	3.061E-02	0.000E+00	1.015E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
191	1.597E-02	4.273E-02	0.000E+00	1.414E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
192	1.688E-02	4.487E-02	0.000E+00	1.489E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
193	1.722E-02	4.582E-02	0.000E+00	1.518E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
194	2.001E-02	5.308E-02	0.000E+00	1.762E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
195	1.829E-02	4.846E-02	0.000E+00	1.609E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
196	1.808E-02	4.791E-02	0.000E+00	1.589E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
197	1.602E-02	4.246E-02	0.000E+00	1.409E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
198	1.776E-02	4.788E-02	0.000E+00	1.581E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
199	1.092E-02	2.914E-02	0.000E+00	9.650E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
200	1.671E-02	4.501E-02	0.000E+00	1.490E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
201	1.814E-02	4.828E-02	0.000E+00	1.599E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
202	2.753E-02	7.392E-02	0.000E+00	2.454E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
203	1.758E-02	4.659E-02	0.000E+00	1.548E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
204	1.437E-02	3.812E-02	0.000E+00	1.267E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
205	1.311E-02	3.478E-02	0.000E+00	1.153E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
206	1.115E-02	2.974E-02	0.000E+00	9.875E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
207	1.023E-02	2.736E-02	0.000E+00	9.108E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
208	5.312E-03	1.429E-02	0.000E+00	4.723E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
209	6.838E-03	1.826E-02	0.000E+00	6.047E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
210	7.581E-03	2.027E-02	0.000E+00	6.707E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
211	6.509E-03	1.731E-02	0.000E+00	5.757E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
212	8.575E-03	2.287E-02	0.000E+00	7.587E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
213	9.913E-03	2.646E-02	0.000E+00	8.763E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
214	7.823E-03	2.093E-02	0.000E+00	6.925E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
215	1.009E-02	2.687E-02	0.000E+00	8.901E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
216	9.630E-03	2.565E-02	0.000E+00	8.494E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
217	1.020E-02	2.718E-02	0.000E+00	9.003E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
218	9.099E-03	2.423E-02	0.000E+00	8.028E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
219	1.176E-02	3.148E-02	0.000E+00	1.042E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
220	7.010E-03	1.877E-02	0.000E+00	6.209E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
221	4.182E-03	1.121E-02	0.000E+00	3.711E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
222	5.720E-03	1.524E-02	0.000E+00	5.057E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
223	6.733E-03	1.789E-02	0.000E+00	5.943E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
224	7.282E-03	1.936E-02	0.000E+00	6.428E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
225	7.368E-03	1.962E-02	0.000E+00	6.509E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
226	8.245E-03	2.204E-02	0.000E+00	7.298E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
227	7.790E-03	2.084E-02	0.000E+00	6.895E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
228	6.687E-03	1.795E-02	0.000E+00	5.934E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
229	6.803E-03	1.816E-02	0.000E+00	6.014E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
230	8.125E-03	2.171E-02	0.000E+00	7.185E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
231	7.121E-03	1.896E-02	0.000E+00	6.303E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
232	9.446E-03	2.520E-02	0.000E+00	8.353E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
233	1.033E-02	2.756E-02	0.000E+00	9.126E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
234	9.074E-03	2.421E-02	0.000E+00	8.014E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
235	1.019E-02	2.711E-02	0.000E+00	8.981E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
236	1.066E-02	2.840E-02	0.000E+00	9.407E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
237	9.463E-03	2.520E-02	0.000E+00	8.348E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
238	1.176E-02	3.154E-02	0.000E+00	1.043E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
239	6.936E-03	1.857E-02	0.000E+00	6.144E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
240	6.225E-03	1.661E-02	0.000E+00	5.506E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
241	6.581E-03	1.751E-02	0.000E+00	5.810E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
242	7.787E-03	2.071E-02	0.000E+00	6.873E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
243	7.584E-03	2.021E-02	0.000E+00	6.703E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
244	9.452E-03	2.526E-02	0.000E+00	8.364E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
245	1.067E-02	2.837E-02	0.000E+00	9.413E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
246	6.591E-03	1.758E-02	0.000E+00	5.827E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
247	8.021E-03	2.143E-02	0.000E+00	7.092E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
248	8.047E-03	2.154E-02	0.000E+00	7.127E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
249	6.640E-03	1.773E-02	0.000E+00	5.870E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
250	8.722E-03	2.328E-02	0.000E+00	7.708E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
251	7.667E-03	2.044E-02	0.000E+00	6.789E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
252	1.060E-02	2.829E-02	0.000E+00	9.370E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
253	1.015E-02	2.709E-02	0.000E+00	8.968E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
254	1.109E-02	2.950E-02	0.000E+00	9.773E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
255	1.094E-02	2.914E-02	0.000E+00	9.652E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
256	9.834E-03	2.619E-02	0.000E+00	8.675E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
257	1.147E-02	3.086E-02	0.000E+00	1.020E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
258	7.025E-03	1.880E-02	0.000E+00	6.220E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
259	7.129E-03	1.900E-02	0.000E+00	6.300E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
260	7.988E-03	2.125E-02	0.000E+00	7.051E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
261	7.738E-03	2.054E-02	0.000E+00	6.825E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
262	1.100E-02	2.939E-02	0.000E+00	9.730E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
263	1.173E-02	3.120E-02	0.000E+00	1.035E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
264	1.377E-02	3.659E-02	0.000E+00	1.214E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
265	8.417E-03	2.252E-02	0.000E+00	7.454E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
266	7.637E-03	2.048E-02	0.000E+00	6.773E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
267	7.529E-03	2.010E-02	0.000E+00	6.654E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
268	9.017E-03	2.409E-02	0.000E+00	7.972E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
269	7.427E-03	1.993E-02	0.000E+00	6.590E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
270	9.362E-03	2.497E-02	0.000E+00	8.267E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
271	8.327E-03	2.223E-02	0.000E+00	7.372E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
272	1.206E-02	3.215E-02	0.000E+00	1.065E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
273	1.198E-02	3.194E-02	0.000E+00	1.058E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
274	1.060E-02	2.822E-02	0.000E+00	9.346E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
275	1.020E-02	2.719E-02	0.000E+00	9.005E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
276	1.084E-02	2.931E-02	0.000E+00	9.675E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
277	7.291E-03	1.947E-02	0.000E+00	6.451E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
278	8.706E-03	2.314E-02	0.000E+00	7.682E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
279	9.063E-03	2.405E-02	0.000E+00	7.991E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
280	1.309E-02	3.498E-02	0.000E+00	1.158E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
281	1.281E-02	3.403E-02	0.000E+00	1.129E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
282	1.539E-02	4.084E-02	0.000E+00	1.355E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
283	1.355E-02	3.604E-02	0.000E+00	1.195E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
284	8.627E-03	2.300E-02	0.000E+00	7.626E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

285	9.200E-03	2.457E-02	0.000E+00	8.137E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
286	9.357E-03	2.503E-02	0.000E+00	8.282E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
287	8.626E-03	2.312E-02	0.000E+00	7.646E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
288	9.092E-03	2.426E-02	0.000E+00	8.032E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
289	9.475E-03	2.534E-02	0.000E+00	8.384E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
290	1.002E-02	2.671E-02	0.000E+00	8.843E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
291	9.640E-03	2.574E-02	0.000E+00	8.524E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
292	1.964E-02	5.344E-02	0.000E+00	1.771E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
293	1.240E-02	3.311E-02	0.000E+00	1.096E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
294	1.599E-02	4.238E-02	0.000E+00	1.407E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
295	1.558E-02	4.134E-02	0.000E+00	1.371E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
296	1.314E-02	3.491E-02	0.000E+00	1.160E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
297	6.915E-03	1.836E-02	0.000E+00	6.107E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
298	7.908E-03	2.103E-02	0.000E+00	6.986E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
299	8.825E-03	2.352E-02	0.000E+00	7.799E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
300	9.804E-03	2.617E-02	0.000E+00	8.665E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
301	1.055E-02	2.820E-02	0.000E+00	9.332E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
302	1.002E-02	2.683E-02	0.000E+00	8.875E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
303	1.096E-02	2.926E-02	0.000E+00	9.686E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
304	1.066E-02	2.839E-02	0.000E+00	9.403E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
305	1.241E-02	3.312E-02	0.000E+00	1.097E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
306	1.484E-02	3.936E-02	0.000E+00	1.307E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
307	1.260E-02	3.346E-02	0.000E+00	1.110E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
308	1.135E-02	3.020E-02	0.000E+00	1.003E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
309	4.896E-03	1.318E-02	0.000E+00	4.355E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
310	5.717E-03	1.513E-02	0.000E+00	5.045E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
311	6.880E-03	1.824E-02	0.000E+00	6.076E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
312	7.722E-03	2.053E-02	0.000E+00	6.822E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
313	8.617E-03	2.297E-02	0.000E+00	7.612E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
314	1.017E-02	2.714E-02	0.000E+00	8.986E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
315	1.203E-02	3.210E-02	0.000E+00	1.063E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
316	1.202E-02	3.213E-02	0.000E+00	1.063E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
317	1.264E-02	3.390E-02	0.000E+00	1.121E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
318	1.130E-02	3.011E-02	0.000E+00	9.997E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
319	9.772E-03	2.608E-02	0.000E+00	8.676E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
320	7.116E-03	1.901E-02	0.000E+00	6.322E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
321	9.866E-03	2.682E-02	0.000E+00	8.842E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
322	1.003E-02	2.728E-02	0.000E+00	8.995E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
323	1.019E-02	2.774E-02	0.000E+00	9.142E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
324	1.032E-02	2.813E-02	0.000E+00	9.271E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
325	1.042E-02	2.841E-02	0.000E+00	9.361E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
326	1.056E-02	2.847E-02	0.000E+00	9.379E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
327	1.251E-02	3.350E-02	0.000E+00	1.108E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
328	1.434E-02	3.841E-02	0.000E+00	1.271E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
329	1.613E-02	4.326E-02	0.000E+00	1.431E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
330	7.965E-03	2.125E-02	0.000E+00	7.036E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
331	7.804E-03	2.085E-02	0.000E+00	6.902E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
332	7.898E-03	2.110E-02	0.000E+00	6.988E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
333	2.641E-02	7.063E-02	0.000E+00	2.337E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
334	2.759E-02	7.375E-02	0.000E+00	2.441E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
335	2.884E-02	7.705E-02	0.000E+00	2.550E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
336	3.013E-02	8.045E-02	0.000E+00	2.663E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
337	3.139E-02	8.376E-02	0.000E+00	2.773E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
338	3.244E-02	8.655E-02	0.000E+00	2.865E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
339	3.294E-02	8.791E-02	0.000E+00	2.910E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
340	3.210E-02	8.574E-02	0.000E+00	2.838E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
341	7.690E-03	2.068E-02	0.000E+00	6.837E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
342	8.794E-03	2.347E-02	0.000E+00	7.779E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
343	8.949E-03	2.385E-02	0.000E+00	7.918E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
344	8.286E-03	2.207E-02	0.000E+00	7.337E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
345	7.225E-03	1.923E-02	0.000E+00	6.399E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
346	3.092E-02	8.257E-02	0.000E+00	2.733E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
347	3.118E-02	8.326E-02	0.000E+00	2.756E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
348	3.138E-02	8.381E-02	0.000E+00	2.774E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
349	3.159E-02	8.438E-02	0.000E+00	2.793E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
350	3.192E-02	8.527E-02	0.000E+00	2.822E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
351	3.253E-02	8.690E-02	0.000E+00	2.876E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
352	3.361E-02	8.976E-02	0.000E+00	2.971E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
353	3.508E-02	9.376E-02	0.000E+00	3.103E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
354	7.762E-03	2.080E-02	0.000E+00	6.897E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
355	6.417E-03	1.711E-02	0.000E+00	5.684E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
356	5.767E-03	1.534E-02	0.000E+00	5.101E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
357	5.318E-03	1.414E-02	0.000E+00	4.701E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
358	4.963E-03	1.319E-02	0.000E+00	4.386E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
359	2.438E-02	6.468E-02	0.000E+00	2.144E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
360	2.435E-02	6.455E-02	0.000E+00	2.140E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
361	2.424E-02	6.423E-02	0.000E+00	2.130E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
362	2.403E-02	6.360E-02	0.000E+00	2.109E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
363	2.366E-02	6.258E-02	0.000E+00	2.076E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
364	2.321E-02	6.132E-02	0.000E+00	2.035E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
365	2.277E-02	6.009E-02	0.000E+00	1.994E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
366	2.225E-02	5.866E-02	0.000E+00	1.947E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
367	2.268E-02	5.975E-02	0.000E+00	1.984E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
368	1.885E-02	5.011E-02	0.000E+00	1.660E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
369	1.018E-02	2.747E-02	0.000E+00	9.072E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
370	5.940E-03	1.579E-02	0.000E+00	5.239E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
371	6.978E-03	1.873E-02	0.000E+00	6.192E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
372	6.458E-03	1.736E-02	0.000E+00	5.738E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
373	5.900E-03	1.575E-02	0.000E+00	5.218E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
374	5.417E-03	1.448E-02	0.000E+00	4.794E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
375	6.992E-03	1.863E-02	0.000E+00	6.180E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
376	7.524E-03	2.003E-02	0.000E+00	6.646E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
377	7.846E-03	2.088E-02	0.000E+00	6.929E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
378	7.859E-03	2.090E-02	0.000E+00	6.944E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
379	7.364E-03	1.957E-02	0.000E+00	6.514E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
380	6.997E-03	1.871E-02	0.000E+00	6.208E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
381	9.719E-03	2.580E-02	0.000E+00	8.552E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

382	1.122E-02	2.971E-02	0.000E+00	9.876E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
383	2.947E-02	7.819E-02	0.000E+00	2.592E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
384	3.553E-02	9.449E-02	0.000E+00	3.130E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
385	3.062E-02	8.148E-02	0.000E+00	2.699E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
386	2.186E-02	5.807E-02	0.000E+00	1.924E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
387	1.354E-02	3.602E-02	0.000E+00	1.193E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
388	1.209E-02	3.232E-02	0.000E+00	1.070E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
389	1.290E-02	3.449E-02	0.000E+00	1.141E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
390	4.411E-03	1.195E-02	0.000E+00	3.942E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
391	4.434E-03	1.176E-02	0.000E+00	3.912E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
392	4.896E-03	1.301E-02	0.000E+00	4.322E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
393	5.114E-03	1.361E-02	0.000E+00	4.517E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
394	6.429E-03	1.710E-02	0.000E+00	5.682E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
395	5.868E-03	1.560E-02	0.000E+00	5.188E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
396	5.309E-03	1.416E-02	0.000E+00	4.700E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
397	6.056E-03	1.614E-02	0.000E+00	5.362E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
398	6.527E-03	1.734E-02	0.000E+00	5.752E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
399	9.622E-03	2.554E-02	0.000E+00	8.472E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
400	8.543E-03	2.266E-02	0.000E+00	7.544E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
401	1.342E-02	3.584E-02	0.000E+00	1.186E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
402	2.895E-02	7.717E-02	0.000E+00	2.555E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
403	3.533E-02	9.389E-02	0.000E+00	3.111E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
404	2.711E-02	7.220E-02	0.000E+00	2.391E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
405	1.886E-02	5.015E-02	0.000E+00	1.662E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
406	1.113E-02	2.964E-02	0.000E+00	9.818E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
407	1.050E-02	2.793E-02	0.000E+00	9.252E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
408	1.061E-02	2.834E-02	0.000E+00	9.380E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
409	1.122E-02	2.998E-02	0.000E+00	9.923E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
410	3.909E-03	1.061E-02	0.000E+00	3.493E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
411	3.987E-03	1.079E-02	0.000E+00	3.560E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
412	3.869E-03	1.034E-02	0.000E+00	3.421E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
413	8.743E-03	2.321E-02	0.000E+00	7.708E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
414	5.732E-03	1.524E-02	0.000E+00	5.070E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
415	6.151E-03	1.671E-02	0.000E+00	5.547E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
416	6.885E-03	1.829E-02	0.000E+00	6.086E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
417	4.786E-03	1.315E-02	0.000E+00	4.364E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
418	7.749E-03	2.073E-02	0.000E+00	6.864E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
419	5.810E-03	1.564E-02	0.000E+00	5.169E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
420	1.404E-02	3.768E-02	0.000E+00	1.246E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
421	2.204E-02	5.867E-02	0.000E+00	1.946E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
422	2.339E-02	6.240E-02	0.000E+00	2.067E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
423	2.214E-02	5.886E-02	0.000E+00	1.956E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
424	2.145E-02	5.726E-02	0.000E+00	1.897E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
425	3.186E-02	8.467E-02	0.000E+00	2.812E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
426	3.064E-02	8.136E-02	0.000E+00	2.713E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
427	2.910E-02	7.749E-02	0.000E+00	2.566E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
428	3.436E-02	9.134E-02	0.000E+00	3.026E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
429	3.280E-02	8.721E-02	0.000E+00	2.889E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
430	3.108E-02	8.268E-02	0.000E+00	2.739E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
431	2.530E-02	6.738E-02	0.000E+00	2.232E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
432	2.397E-02	6.383E-02	0.000E+00	2.114E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
433	2.249E-02	5.990E-02	0.000E+00	1.984E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
434	1.567E-02	4.175E-02	0.000E+00	1.383E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
435	1.303E-02	3.484E-02	0.000E+00	1.153E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
436	1.099E-02	2.948E-02	0.000E+00	9.749E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
437	1.056E-02	2.812E-02	0.000E+00	9.313E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
438	9.001E-03	2.402E-02	0.000E+00	7.953E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
439	7.294E-03	1.952E-02	0.000E+00	6.464E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
440	9.452E-03	2.518E-02	0.000E+00	8.338E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
441	1.086E-02	2.889E-02	0.000E+00	9.570E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
442	1.068E-02	2.845E-02	0.000E+00	9.422E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
443	8.938E-03	2.380E-02	0.000E+00	7.883E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
444	8.677E-03	2.310E-02	0.000E+00	7.651E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
445	7.379E-03	1.968E-02	0.000E+00	6.516E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
446	7.658E-03	2.049E-02	0.000E+00	6.781E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
447	7.943E-03	2.117E-02	0.000E+00	7.011E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
448	7.363E-03	1.963E-02	0.000E+00	6.501E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
449	9.667E-03	2.583E-02	0.000E+00	8.548E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
450	8.140E-03	2.172E-02	0.000E+00	7.192E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
451	6.746E-03	1.801E-02	0.000E+00	5.963E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** PREDICTED PEAK 1-HOUR CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	Zn	NTXPM
1	1.721E-03	2.918E+02
2	1.276E-03	2.174E+02
3	1.300E-03	2.216E+02
4	2.188E-03	3.738E+02
5	2.134E-03	3.616E+02
6	2.064E-03	3.526E+02

7	1.599E-03	2.746E+02
8	1.568E-03	2.672E+02
9	1.631E-03	2.793E+02
10	2.522E-03	4.261E+02
11	1.424E-03	2.424E+02
12	3.285E-03	5.627E+02
13	6.553E-03	1.122E+03
14	6.745E-03	1.156E+03
15	6.819E-03	1.169E+03
16	6.914E-03	1.185E+03
17	2.361E-03	4.020E+02
18	1.844E-03	3.146E+02
19	2.079E-03	3.545E+02
20	2.139E-03	3.649E+02
21	5.519E-03	9.089E+02
22	5.122E-03	8.445E+02
23	5.866E-03	9.796E+02
24	7.448E-03	1.261E+03
25	7.801E-03	1.323E+03
26	6.762E-03	1.159E+03
27	4.977E-03	8.669E+02
28	5.276E-03	8.964E+02
29	8.296E-03	1.398E+03
30	9.408E-03	1.594E+03
31	8.954E-03	1.522E+03
32	7.384E-03	1.258E+03
33	6.902E-03	1.184E+03
34	6.991E-03	1.198E+03
35	4.860E-03	8.267E+02
36	3.989E-03	6.799E+02
37	4.288E-03	7.369E+02
38	2.215E-03	3.772E+02
39	2.389E-03	4.069E+02
40	2.595E-03	4.417E+02
41	3.335E-03	5.679E+02
42	3.487E-03	5.897E+02
43	2.035E-03	3.152E+02
44	1.800E-03	2.208E+02
45	2.179E-03	2.812E+02
46	2.156E-03	2.643E+02
47	2.877E-03	3.192E+02
48	2.681E-03	3.895E+02
49	2.700E-03	3.186E+02
50	2.294E-03	3.778E+02
51	2.194E-03	3.695E+02
52	1.844E-03	3.113E+02
53	1.637E-03	2.442E+02
54	1.544E-03	2.568E+02
55	1.847E-03	3.142E+02
56	2.130E-03	3.621E+02
57	2.313E-03	3.958E+02
58	2.470E-03	4.241E+02
59	2.713E-03	4.677E+02
60	3.167E-03	5.472E+02
61	5.793E-03	9.844E+02
62	6.396E-03	1.077E+03
63	4.099E-03	7.053E+02
64	3.725E-03	6.355E+02
65	3.508E-03	5.239E+02
66	3.319E-03	5.561E+02
67	2.850E-03	4.678E+02
68	2.633E-03	4.275E+02
69	3.913E-03	6.305E+02
70	4.467E-03	7.477E+02
71	6.558E-03	1.056E+03
72	3.393E-03	5.750E+02
73	2.309E-03	3.886E+02
74	2.864E-03	4.881E+02
75	2.270E-03	3.854E+02
76	2.338E-03	3.949E+02
77	2.570E-03	4.357E+02
78	2.515E-03	4.291E+02
79	2.814E-03	4.807E+02
80	2.912E-03	4.961E+02
81	2.722E-03	4.595E+02
82	2.623E-03	4.381E+02
83	2.923E-03	4.869E+02
84	3.026E-03	5.044E+02
85	4.174E-03	6.928E+02
86	8.826E-03	1.457E+03
87	7.926E-03	1.322E+03
88	7.585E-03	1.276E+03
89	7.289E-03	1.231E+03
90	6.468E-03	1.092E+03
91	2.265E-03	3.845E+02
92	2.345E-03	3.990E+02
93	2.250E-03	3.822E+02
94	2.298E-03	3.946E+02
95	2.444E-03	4.205E+02
96	2.551E-03	4.295E+02
97	3.010E-03	5.112E+02
98	3.468E-03	5.811E+02
99	2.901E-03	4.978E+02
100	3.143E-03	5.304E+02
101	2.868E-03	4.877E+02
102	3.216E-03	5.505E+02
103	2.320E-03	3.933E+02

104	2.205E-03	3.736E+02
105	2.285E-03	3.921E+02
106	2.487E-03	4.276E+02
107	2.824E-03	4.754E+02
108	3.146E-03	5.331E+02
109	3.333E-03	5.689E+02
110	3.236E-03	5.554E+02
111	2.724E-03	4.690E+02
112	3.100E-03	5.279E+02
113	3.540E-03	6.060E+02
114	3.690E-03	6.344E+02
115	2.136E-03	3.603E+02
116	2.258E-03	3.868E+02
117	2.515E-03	4.319E+02
118	3.010E-03	5.057E+02
119	3.495E-03	5.916E+02
120	3.660E-03	6.244E+02
121	3.445E-03	5.906E+02
122	3.032E-03	5.222E+02
123	3.306E-03	5.635E+02
124	3.673E-03	6.291E+02
125	3.823E-03	6.576E+02
126	3.967E-03	6.840E+02
127	2.220E-03	3.790E+02
128	2.530E-03	4.334E+02
129	3.120E-03	5.219E+02
130	3.440E-03	5.794E+02
131	3.109E-03	5.265E+02
132	3.774E-03	6.468E+02
133	3.280E-03	5.646E+02
134	3.369E-03	5.742E+02
135	3.652E-03	6.252E+02
136	5.279E-03	8.812E+02
137	4.379E-03	7.313E+02
138	4.546E-03	7.604E+02
139	2.603E-03	4.342E+02
140	3.136E-03	5.191E+02
141	3.562E-03	5.947E+02
142	4.374E-03	6.545E+02
143	3.998E-03	6.108E+02
144	3.360E-03	5.773E+02
145	3.580E-03	6.103E+02
146	3.769E-03	6.455E+02
147	4.434E-03	7.422E+02
148	5.784E-03	9.639E+02
149	5.885E-03	9.887E+02
150	5.670E-03	9.557E+02
151	3.895E-03	6.670E+02
152	5.644E-03	9.378E+02
153	6.310E-03	1.055E+03
154	3.944E-03	6.791E+02
155	6.026E-03	1.019E+03
156	5.666E-03	9.610E+02
157	2.664E-03	4.542E+02
158	2.420E-03	3.967E+02
159	1.461E-03	2.466E+02
160	1.939E-03	3.209E+02
161	1.914E-03	3.263E+02
162	1.909E-03	3.272E+02
163	2.090E-03	3.596E+02
164	2.185E-03	3.637E+02
165	3.280E-03	5.564E+02
166	3.501E-03	5.993E+02
167	2.946E-03	5.038E+02
168	1.908E-03	3.221E+02
169	1.596E-03	2.688E+02
170	2.058E-03	3.502E+02
171	2.022E-03	3.443E+02
172	2.222E-03	3.821E+02
173	2.309E-03	3.830E+02
174	3.262E-03	5.515E+02
175	3.139E-03	5.356E+02
176	3.290E-03	5.641E+02
177	3.500E-03	6.032E+02
178	2.274E-03	3.875E+02
179	1.738E-03	2.917E+02
180	2.343E-03	3.992E+02
181	2.294E-03	3.942E+02
182	2.949E-03	5.009E+02
183	3.170E-03	5.331E+02
184	2.840E-03	4.835E+02
185	3.705E-03	6.370E+02
186	3.614E-03	6.238E+02
187	3.395E-03	5.841E+02
188	2.984E-03	5.006E+02
189	1.933E-03	3.248E+02
190	2.274E-03	3.898E+02
191	3.210E-03	5.421E+02
192	3.338E-03	5.726E+02
193	3.411E-03	5.827E+02
194	3.933E-03	6.778E+02
195	3.584E-03	6.193E+02
196	3.547E-03	6.114E+02
197	3.144E-03	5.425E+02
198	3.639E-03	6.042E+02
199	2.178E-03	3.698E+02
200	3.417E-03	5.692E+02

201	3.596E-03	6.143E+02
202	5.597E-03	9.475E+02
203	3.448E-03	5.956E+02
204	2.826E-03	4.876E+02
205	2.580E-03	4.437E+02
206	2.225E-03	3.796E+02
207	2.053E-03	3.495E+02
208	1.083E-03	1.805E+02
209	1.368E-03	2.321E+02
210	1.521E-03	2.573E+02
211	1.287E-03	2.211E+02
212	1.709E-03	2.912E+02
213	1.981E-03	3.363E+02
214	1.572E-03	2.654E+02
215	2.006E-03	3.419E+02
216	1.913E-03	3.264E+02
217	2.028E-03	3.460E+02
218	1.808E-03	3.085E+02
219	2.370E-03	4.000E+02
220	1.413E-03	2.385E+02
221	8.438E-04	1.420E+02
222	1.138E-03	1.942E+02
223	1.330E-03	2.283E+02
224	1.440E-03	2.469E+02
225	1.462E-03	2.499E+02
226	1.654E-03	2.796E+02
227	1.565E-03	2.644E+02
228	1.355E-03	2.271E+02
229	1.360E-03	2.309E+02
230	1.627E-03	2.757E+02
231	1.413E-03	2.420E+02
232	1.885E-03	3.206E+02
233	2.063E-03	3.502E+02
234	1.811E-03	3.078E+02
235	2.021E-03	3.452E+02
236	2.119E-03	3.615E+02
237	1.880E-03	3.208E+02
238	2.381E-03	4.005E+02
239	1.398E-03	2.361E+02
240	1.242E-03	2.113E+02
241	1.304E-03	2.230E+02
242	1.540E-03	2.639E+02
243	1.509E-03	2.573E+02
244	1.894E-03	3.205E+02
245	2.113E-03	3.619E+02
246	1.316E-03	2.238E+02
247	1.606E-03	2.723E+02
248	1.620E-03	2.732E+02
249	1.328E-03	2.254E+02
250	1.743E-03	2.959E+02
251	1.528E-03	2.606E+02
252	2.116E-03	3.597E+02
253	2.027E-03	3.441E+02
254	2.198E-03	3.756E+02
255	2.175E-03	3.709E+02
256	1.954E-03	3.334E+02
257	2.340E-03	3.914E+02
258	1.414E-03	2.391E+02
259	1.418E-03	2.420E+02
260	1.582E-03	2.706E+02
261	1.524E-03	2.624E+02
262	2.203E-03	3.730E+02
263	2.321E-03	3.980E+02
264	2.720E-03	4.662E+02
265	1.693E-03	2.857E+02
266	1.544E-03	2.593E+02
267	1.505E-03	2.556E+02
268	1.806E-03	3.059E+02
269	1.504E-03	2.522E+02
270	1.867E-03	3.175E+02
271	1.665E-03	2.829E+02
272	2.401E-03	4.089E+02
273	2.386E-03	4.063E+02
274	2.104E-03	3.592E+02
275	2.030E-03	3.460E+02
276	2.239E-03	3.711E+02
277	1.459E-03	2.475E+02
278	1.721E-03	2.951E+02
279	1.784E-03	3.072E+02
280	2.621E-03	4.440E+02
281	2.531E-03	4.344E+02
282	3.029E-03	5.212E+02
283	2.681E-03	4.588E+02
284	1.719E-03	2.928E+02
285	1.841E-03	3.122E+02
286	1.879E-03	3.175E+02
287	1.741E-03	2.928E+02
288	1.815E-03	3.085E+02
289	1.902E-03	3.215E+02
290	1.994E-03	3.397E+02
291	1.928E-03	3.271E+02
292	4.123E-03	6.734E+02
293	2.481E-03	4.208E+02
294	3.138E-03	5.416E+02
295	3.065E-03	5.275E+02
296	2.595E-03	4.463E+02
297	1.362E-03	2.348E+02

298	1.566E-03	2.685E+02
299	1.757E-03	2.995E+02
300	1.959E-03	3.327E+02
301	2.114E-03	3.580E+02
302	2.017E-03	3.400E+02
303	2.190E-03	3.718E+02
304	2.120E-03	3.612E+02
305	2.478E-03	4.209E+02
306	2.918E-03	5.032E+02
307	2.484E-03	4.268E+02
308	2.251E-03	3.856E+02
309	9.994E-04	1.664E+02
310	1.117E-03	1.940E+02
311	1.351E-03	2.336E+02
312	1.527E-03	2.622E+02
313	1.716E-03	2.925E+02
314	2.031E-03	3.451E+02
315	2.402E-03	4.080E+02
316	2.410E-03	4.077E+02
317	2.558E-03	4.293E+02
318	2.247E-03	3.844E+02
319	1.953E-03	3.332E+02
320	1.424E-03	2.425E+02
321	2.063E-03	3.357E+02
322	2.101E-03	3.413E+02
323	2.139E-03	3.467E+02
324	2.173E-03	3.514E+02
325	2.197E-03	3.546E+02
326	2.206E-03	3.584E+02
327	2.519E-03	4.247E+02
328	2.890E-03	4.867E+02
329	3.263E-03	5.465E+02
330	1.590E-03	2.700E+02
331	1.563E-03	2.649E+02
332	1.583E-03	2.683E+02
333	5.303E-03	8.956E+02
334	5.533E-03	9.357E+02
335	5.775E-03	9.779E+02
336	6.025E-03	1.021E+03
337	6.269E-03	1.064E+03
338	6.474E-03	1.099E+03
339	6.578E-03	1.116E+03
340	6.428E-03	1.088E+03
341	2.029E-03	2.620E+02
342	1.758E-03	2.987E+02
343	1.782E-03	3.042E+02
344	1.647E-03	2.819E+02
345	1.433E-03	2.459E+02
346	6.184E-03	1.050E+03
347	6.238E-03	1.058E+03
348	6.281E-03	1.065E+03
349	6.325E-03	1.073E+03
350	6.392E-03	1.084E+03
351	6.513E-03	1.105E+03
352	6.728E-03	1.141E+03
353	7.035E-03	1.192E+03
354	1.936E-03	2.645E+02
355	1.418E-03	2.183E+02
356	1.179E-03	1.960E+02
357	1.051E-03	1.807E+02
358	9.805E-04	1.686E+02
359	4.796E-03	8.244E+02
360	4.781E-03	8.229E+02
361	4.751E-03	8.190E+02
362	4.698E-03	8.112E+02
363	4.615E-03	7.983E+02
364	4.515E-03	7.824E+02
365	4.417E-03	7.669E+02
366	4.303E-03	7.489E+02
367	4.378E-03	7.628E+02
368	3.728E-03	6.388E+02
369	2.094E-03	3.481E+02
370	1.612E-03	2.015E+02
371	1.414E-03	2.377E+02
372	1.314E-03	2.199E+02
373	1.186E-03	2.002E+02
374	1.086E-03	1.838E+02
375	1.391E-03	2.373E+02
376	1.494E-03	2.553E+02
377	1.555E-03	2.663E+02
378	1.555E-03	2.669E+02
379	1.456E-03	2.504E+02
380	1.405E-03	2.388E+02
381	1.914E-03	3.287E+02
382	2.197E-03	3.800E+02
383	5.795E-03	9.959E+02
384	7.029E-03	1.201E+03
385	6.072E-03	1.037E+03
386	4.315E-03	7.411E+02
387	2.681E-03	4.588E+02
388	2.425E-03	4.112E+02
389	2.588E-03	4.383E+02
390	1.180E-03	1.511E+02
391	1.103E-03	1.504E+02
392	1.035E-03	1.661E+02
393	1.014E-03	1.735E+02
394	1.273E-03	2.183E+02

395	1.160E-03	1.994E+02
396	1.059E-03	1.805E+02
397	1.205E-03	2.061E+02
398	1.289E-03	2.211E+02
399	1.894E-03	3.257E+02
400	1.679E-03	2.902E+02
401	2.682E-03	4.543E+02
402	5.763E-03	9.795E+02
403	6.980E-03	1.194E+03
404	5.387E-03	9.191E+02
405	3.731E-03	6.392E+02
406	2.211E-03	3.774E+02
407	2.080E-03	3.557E+02
408	2.122E-03	3.605E+02
409	2.248E-03	3.810E+02
410	9.816E-04	1.337E+02
411	9.572E-04	1.362E+02
412	9.077E-04	1.313E+02
413	1.722E-03	2.963E+02
414	1.134E-03	1.949E+02
415	1.287E-03	2.131E+02
416	1.358E-03	2.340E+02
417	1.031E-03	1.679E+02
418	1.557E-03	2.625E+02
419	1.186E-03	1.971E+02
420	2.845E-03	4.767E+02
421	4.373E-03	7.475E+02
422	4.670E-03	7.938E+02
423	4.381E-03	7.519E+02
424	4.286E-03	7.265E+02
425	6.293E-03	1.080E+03
426	6.039E-03	1.042E+03
427	5.777E-03	9.841E+02
428	6.792E-03	1.162E+03
429	6.489E-03	1.110E+03
430	6.156E-03	1.052E+03
431	5.028E-03	8.579E+02
432	4.761E-03	8.128E+02
433	4.468E-03	7.627E+02
434	3.117E-03	5.313E+02
435	2.613E-03	4.424E+02
436	2.223E-03	3.735E+02
437	2.099E-03	3.579E+02
438	1.799E-03	3.054E+02
439	1.467E-03	2.478E+02
440	1.879E-03	3.204E+02
441	2.153E-03	3.678E+02
442	2.121E-03	3.621E+02
443	1.775E-03	3.029E+02
444	1.722E-03	2.941E+02
445	1.471E-03	2.503E+02
446	1.541E-03	2.606E+02
447	1.582E-03	2.692E+02
448	1.466E-03	2.497E+02
449	1.936E-03	3.281E+02
450	1.626E-03	2.764E+02
451	1.349E-03	2.288E+02

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00 0.000E+00

*** PREDICTED ANNUAL CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	ACETA	ACROL	As	BENZE	Be	Cd	Cr	Cu	HCHO	HCN
1	0.000E+00	0.000E+00	7.239E-05	0.000E+00	3.944E-06	2.627E-06	4.423E-07	6.079E-06	0.000E+00	1.076E-01
2	0.000E+00	0.000E+00	1.096E-04	0.000E+00	5.270E-06	3.953E-06	6.660E-07	9.202E-06	0.000E+00	1.098E-01
3	0.000E+00	0.000E+00	1.089E-04	0.000E+00	5.191E-06	3.927E-06	6.614E-07	9.141E-06	0.000E+00	1.091E-01
4	0.000E+00	0.000E+00	1.408E-04	0.000E+00	7.126E-06	5.092E-06	8.572E-07	1.182E-05	0.000E+00	1.637E-01
5	0.000E+00	0.000E+00	1.420E-04	0.000E+00	7.204E-06	5.138E-06	8.652E-07	1.193E-05	0.000E+00	1.606E-01
6	0.000E+00	0.000E+00	1.289E-04	0.000E+00	6.673E-06	4.664E-06	7.858E-07	1.083E-05	0.000E+00	1.451E-01
7	0.000E+00	0.000E+00	1.142E-04	0.000E+00	5.800E-06	4.129E-06	6.958E-07	9.593E-06	0.000E+00	1.011E-01
8	0.000E+00	0.000E+00	1.146E-04	0.000E+00	6.402E-06	4.147E-06	7.007E-07	9.622E-06	0.000E+00	1.013E-01
9	0.000E+00	0.000E+00	1.189E-04	0.000E+00	6.927E-06	4.305E-06	7.283E-07	9.983E-06	0.000E+00	1.048E-01
10	0.000E+00	0.000E+00	1.509E-04	0.000E+00	7.754E-06	5.487E-06	9.200E-07	1.267E-05	0.000E+00	3.612E-01
11	0.000E+00	0.000E+00	6.166E-05	0.000E+00	3.279E-06	2.230E-06	3.762E-07	5.177E-06	0.000E+00	7.910E-02
12	0.000E+00	0.000E+00	2.668E-04	0.000E+00	1.516E-05	9.641E-06	1.633E-06	2.241E-05	0.000E+00	5.094E-01
13	0.000E+00	0.000E+00	1.142E-04	0.000E+00	8.511E-06	4.177E-06	7.087E-07	9.591E-06	0.000E+00	4.054E-01
14	0.000E+00	0.000E+00	1.151E-04	0.000E+00	8.585E-06	4.211E-06	7.147E-07	9.672E-06	0.000E+00	4.186E-01
15	0.000E+00	0.000E+00	1.121E-04	0.000E+00	8.405E-06	4.106E-06	6.964E-07	9.421E-06	0.000E+00	3.973E-01
16	0.000E+00	0.000E+00	1.276E-04	0.000E+00	9.458E-06	4.668E-06	7.916E-07	1.072E-05	0.000E+00	5.410E-01
17	0.000E+00	0.000E+00	6.810E-05	0.000E+00	3.722E-06	2.462E-06	4.160E-07	5.719E-06	0.000E+00	8.143E-02
18	0.000E+00	0.000E+00	1.023E-04	0.000E+00	6.142E-06	3.707E-06	6.275E-07	8.590E-06	0.000E+00	1.774E-01
19	0.000E+00	0.000E+00	1.012E-04	0.000E+00	6.909E-06	3.696E-06	6.249E-07	8.497E-06	0.000E+00	2.230E-01

20	0.000E+00	0.000E+00	1.419E-04	0.000E+00	9.434E-06	5.158E-06	8.753E-07	1.192E-05	0.000E+00	4.009E-01
21	0.000E+00	0.000E+00	1.035E-04	0.000E+00	8.160E-06	3.846E-06	6.451E-07	8.695E-06	0.000E+00	9.410E-01
22	0.000E+00	0.000E+00	9.621E-05	0.000E+00	8.317E-06	3.595E-06	6.035E-07	8.086E-06	0.000E+00	8.964E-01
23	0.000E+00	0.000E+00	9.588E-05	0.000E+00	8.483E-06	3.588E-06	6.024E-07	8.058E-06	0.000E+00	8.852E-01
24	0.000E+00	0.000E+00	9.526E-05	0.000E+00	8.311E-06	3.549E-06	5.978E-07	8.006E-06	0.000E+00	8.887E-01
25	0.000E+00	0.000E+00	9.606E-05	0.000E+00	8.094E-06	3.565E-06	6.013E-07	8.072E-06	0.000E+00	9.623E-01
26	0.000E+00	0.000E+00	1.022E-04	0.000E+00	6.960E-06	3.746E-06	6.312E-07	8.583E-06	0.000E+00	1.120E+00
27	0.000E+00	0.000E+00	1.050E-04	0.000E+00	6.450E-06	3.826E-06	6.452E-07	8.819E-06	0.000E+00	6.577E-01
28	0.000E+00	0.000E+00	1.122E-04	0.000E+00	6.701E-06	4.087E-06	6.886E-07	9.426E-06	0.000E+00	5.401E-01
29	0.000E+00	0.000E+00	1.419E-04	0.000E+00	8.946E-06	5.160E-06	8.728E-07	1.192E-05	0.000E+00	4.623E-01
30	0.000E+00	0.000E+00	1.501E-04	0.000E+00	9.782E-06	5.456E-06	9.249E-07	1.261E-05	0.000E+00	4.549E-01
31	0.000E+00	0.000E+00	1.568E-04	0.000E+00	1.056E-05	5.694E-06	9.677E-07	1.317E-05	0.000E+00	4.844E-01
32	0.000E+00	0.000E+00	1.571E-04	0.000E+00	1.101E-05	5.709E-06	9.716E-07	1.320E-05	0.000E+00	5.855E-01
33	0.000E+00	0.000E+00	1.736E-04	0.000E+00	1.262E-05	6.335E-06	1.076E-06	1.459E-05	0.000E+00	2.114E+00
34	0.000E+00	0.000E+00	1.917E-04	0.000E+00	1.424E-05	7.009E-06	1.190E-06	1.611E-05	0.000E+00	2.252E+00
35	0.000E+00	0.000E+00	2.043E-04	0.000E+00	1.528E-05	7.467E-06	1.268E-06	1.716E-05	0.000E+00	2.229E+00
36	0.000E+00	0.000E+00	2.132E-04	0.000E+00	1.548E-05	7.768E-06	1.321E-06	1.791E-05	0.000E+00	2.126E+00
37	0.000E+00	0.000E+00	2.140E-04	0.000E+00	1.510E-05	7.751E-06	1.324E-06	1.798E-05	0.000E+00	1.957E+00
38	0.000E+00	0.000E+00	2.084E-04	0.000E+00	1.401E-05	7.528E-06	1.285E-06	1.750E-05	0.000E+00	1.032E+00
39	0.000E+00	0.000E+00	2.539E-04	0.000E+00	1.768E-05	9.192E-06	1.570E-06	2.133E-05	0.000E+00	1.977E+00
40	0.000E+00	0.000E+00	3.213E-04	0.000E+00	2.307E-05	1.165E-05	1.989E-06	2.699E-05	0.000E+00	2.461E+00
41	0.000E+00	0.000E+00	4.368E-04	0.000E+00	3.563E-05	1.686E-05	2.735E-06	3.670E-05	0.000E+00	2.178E+00
42	0.000E+00	0.000E+00	6.659E-04	0.000E+00	5.931E-05	2.475E-05	4.184E-06	5.596E-05	0.000E+00	1.405E+00
43	0.000E+00	0.000E+00	5.706E-04	0.000E+00	4.396E-05	2.117E-05	3.552E-06	4.794E-05	0.000E+00	9.625E-01
44	0.000E+00	0.000E+00	5.313E-04	0.000E+00	2.294E-05	1.950E-05	3.219E-06	4.460E-05	0.000E+00	6.130E-01
45	0.000E+00	0.000E+00	5.177E-04	0.000E+00	1.522E-05	1.869E-05	3.100E-06	4.344E-05	0.000E+00	4.053E-01
46	0.000E+00	0.000E+00	3.273E-04	0.000E+00	1.148E-05	1.184E-05	1.969E-06	2.747E-05	0.000E+00	2.956E-01
47	0.000E+00	0.000E+00	4.809E-04	0.000E+00	2.113E-05	1.767E-05	2.915E-06	4.037E-05	0.000E+00	3.160E-01
48	0.000E+00	0.000E+00	6.325E-04	0.000E+00	1.588E-05	2.292E-05	3.775E-06	5.307E-05	0.000E+00	3.435E-01
49	0.000E+00	0.000E+00	7.479E-04	0.000E+00	1.863E-05	2.715E-05	4.463E-06	6.276E-05	0.000E+00	3.582E-01
50	0.000E+00	0.000E+00	7.994E-04	0.000E+00	2.164E-05	2.916E-05	4.780E-06	6.708E-05	0.000E+00	3.461E-01
51	0.000E+00	0.000E+00	4.195E-04	0.000E+00	1.731E-05	1.563E-05	2.540E-06	3.521E-05	0.000E+00	2.950E-01
52	0.000E+00	0.000E+00	2.777E-04	0.000E+00	1.257E-05	1.020E-05	1.685E-06	2.331E-05	0.000E+00	2.445E-01
53	0.000E+00	0.000E+00	2.011E-04	0.000E+00	9.369E-06	7.330E-06	1.221E-06	1.688E-05	0.000E+00	2.025E-01
54	0.000E+00	0.000E+00	1.609E-04	0.000E+00	1.248E-05	6.120E-06	1.003E-06	1.352E-05	0.000E+00	1.706E-01
55	0.000E+00	0.000E+00	1.740E-04	0.000E+00	1.069E-05	6.606E-06	1.071E-06	1.461E-05	0.000E+00	1.816E-01
56	0.000E+00	0.000E+00	1.890E-04	0.000E+00	1.193E-05	7.209E-06	1.166E-06	1.588E-05	0.000E+00	1.892E-01
57	0.000E+00	0.000E+00	2.002E-04	0.000E+00	9.685E-06	7.271E-06	1.217E-06	1.681E-05	0.000E+00	1.888E-01
58	0.000E+00	0.000E+00	2.507E-04	0.000E+00	1.267E-05	9.147E-06	1.527E-06	2.105E-05	0.000E+00	2.140E-01
59	0.000E+00	0.000E+00	3.094E-04	0.000E+00	2.360E-05	1.167E-05	1.927E-06	2.600E-05	0.000E+00	2.380E-01
60	0.000E+00	0.000E+00	3.695E-04	0.000E+00	2.849E-05	1.378E-05	2.301E-06	3.105E-05	0.000E+00	2.545E-01
61	0.000E+00	0.000E+00	4.431E-04	0.000E+00	3.281E-05	1.641E-05	2.752E-06	3.723E-05	0.000E+00	2.647E-01
62	0.000E+00	0.000E+00	5.206E-04	0.000E+00	3.840E-05	1.923E-05	3.232E-06	4.374E-05	0.000E+00	2.785E-01
63	0.000E+00	0.000E+00	6.042E-04	0.000E+00	4.812E-05	2.239E-05	3.768E-06	5.077E-05	0.000E+00	2.988E-01
64	0.000E+00	0.000E+00	5.567E-04	0.000E+00	4.454E-05	2.088E-05	3.475E-06	4.678E-05	0.000E+00	2.776E-01
65	0.000E+00	0.000E+00	6.562E-04	0.000E+00	4.691E-05	2.414E-05	4.066E-06	5.513E-05	0.000E+00	2.999E-01
66	0.000E+00	0.000E+00	8.217E-04	0.000E+00	5.037E-05	3.010E-05	5.050E-06	6.902E-05	0.000E+00	3.263E-01
67	0.000E+00	0.000E+00	1.126E-03	0.000E+00	5.155E-05	4.112E-05	6.838E-06	9.459E-05	0.000E+00	3.674E-01
68	0.000E+00	0.000E+00	1.208E-03	0.000E+00	5.018E-05	4.436E-05	7.310E-06	1.014E-04	0.000E+00	4.083E-01
69	0.000E+00	0.000E+00	1.208E-03	0.000E+00	5.274E-05	4.412E-05	7.320E-06	1.014E-04	0.000E+00	4.505E-01
70	0.000E+00	0.000E+00	1.180E-03	0.000E+00	5.325E-05	4.318E-05	7.160E-06	9.907E-05	0.000E+00	4.778E-01
71	0.000E+00	0.000E+00	7.615E-04	0.000E+00	4.100E-05	2.791E-05	4.653E-06	6.395E-05	0.000E+00	3.984E-01
72	0.000E+00	0.000E+00	5.545E-04	0.000E+00	3.525E-05	2.044E-05	3.415E-06	4.657E-05	0.000E+00	3.294E-01
73	0.000E+00	0.000E+00	4.213E-04	0.000E+00	2.258E-05	1.556E-05	2.575E-06	3.538E-05	0.000E+00	2.760E-01
74	0.000E+00	0.000E+00	3.477E-04	0.000E+00	2.661E-05	1.289E-05	2.163E-06	2.921E-05	0.000E+00	2.394E-01
75	0.000E+00	0.000E+00	3.219E-04	0.000E+00	1.926E-05	1.224E-05	1.980E-06	2.704E-05	0.000E+00	2.440E-01
76	0.000E+00	0.000E+00	2.906E-04	0.000E+00	1.404E-05	1.063E-05	1.768E-06	2.440E-05	0.000E+00	2.555E-01
77	0.000E+00	0.000E+00	2.507E-04	0.000E+00	1.201E-05	9.206E-06	1.525E-06	2.105E-05	0.000E+00	2.577E-01
78	0.000E+00	0.000E+00	2.136E-04	0.000E+00	1.438E-05	8.209E-06	1.323E-06	1.795E-05	0.000E+00	2.520E-01
79	0.000E+00	0.000E+00	2.454E-04	0.000E+00	1.959E-05	9.401E-06	1.534E-06	2.062E-05	0.000E+00	2.866E-01
80	0.000E+00	0.000E+00	2.747E-04	0.000E+00	1.261E-05	1.011E-05	1.668E-06	2.306E-05	0.000E+00	3.304E-01
81	0.000E+00	0.000E+00	3.225E-04	0.000E+00	1.318E-05	1.182E-05	1.950E-06	2.707E-05	0.000E+00	3.905E-01
82	0.000E+00	0.000E+00	3.798E-04	0.000E+00	1.346E-05	1.379E-05	2.286E-06	3.188E-05	0.000E+00	4.736E-01
83	0.000E+00	0.000E+00	4.183E-04	0.000E+00	1.432E-05	1.516E-05	2.515E-06	3.511E-05	0.000E+00	5.906E-01
84	0.000E+00	0.000E+00	4.538E-04	0.000E+00	1.521E-05	1.643E-05	2.727E-06	3.809E-05	0.000E+00	7.943E-01
85	0.000E+00	0.000E+00	4.826E-04	0.000E+00	1.592E-05	1.748E-05	2.899E-06	4.051E-05	0.000E+00	1.268E+00
86	0.000E+00	0.000E+00	4.673E-04	0.000E+00	1.641E-05	1.696E-05	2.812E-06	3.922E-05	0.000E+00	2.898E+00
87	0.000E+00	0.000E+00	2.446E-04	0.000E+00	1.231E-05	8.911E-06	1.490E-06	2.054E-05	0.000E+00	3.314E+00
88	0.000E+00	0.000E+00	1.619E-04	0.000E+00	9.782E-06	5.927E-06	9.940E-07	1.359E-05	0.000E+00	2.082E+00
89	0.000E+00	0.000E+00	1.173E-04	0.000E+00	7.949E-06	4.317E-06	7.245E-07	9.851E-06	0.000E+00	7.771E-01
90	0.000E+00	0.000E+00	1.098E-04	0.000E+00	8.014E-06	4.061E-06	6.814E-07	9.227E-06	0.000E+00	8.986E-01
91	0.000E+00	0.000E+00	5.373E-04	0.000E+00	2.231E-05	1.940E-05	3.249E-06	4.511E-05	0.000E+00	3.187E-01
92	0.000E+00	0.000E+00	5.201E-04	0.000E+00	2.205E-05	1.878E-05	3.147E-06	4.366E-05	0.000E+00	3.061E-01
93	0.000E+00	0.000E+00	4.998E-04	0.000E+00	2.197E-05	1.806E-05	3.028E-06	4.196E-05	0.000E+00	2.908E-01
94	0.000E+00	0.000E+00	4.783E-04	0.000E+00	2.245E-05	1.735E-05	2.905E-06	4.016E-05	0.000E+00	2.753E-01
95	0.000E+00	0.000E+00	4.578E-04	0.000E+00	2.244E-05	1.661E-05	2.785E-06	3.844E-05	0.000E+00	2.619E-01
96	0.000E+00	0.000E+00	4.393E-04	0.000E+00	2.201E-05	1.591E-05	2.674E-06	3.688E-05	0.000E+00	2.499E-01
97	0.000E+00	0.000E+00	4.212E-04	0.000E+00	2.279E-05	1.533E-05	2.573E-06	3.538E-05	0.000E+00	2.385E-01
98	0.000E+00	0.000E+00	3.964E-04	0.000E+00	2.100E-05	1.434E-05	2.419E-06	3.329E-05	0.000E+00	2.277E-01
99	0.000E+00	0.000E+00	3.745E-04	0.000E+00	2.269E-05	1.369E-05	2.300E-06	3.145E-05	0.000E+00	2.188E-01
100	0.000E+00	0.000E+00	3.505E-04	0.000E+00	2.187E-05	1.281E-05	2.155E-06	2.944E-05	0.000E+00	2.110E-01
101	0.000E+00	0.000E+00	3.298E-04	0.000E+00	2.384E-05	1.224E-05	2.045E-06	2.771E-05	0.000E+00	2.051E-01
102	0.000E+00	0.000E+00	3.116E-04	0.000E+00	2.777E-05	1.163E-05	1.958E-06	2.619E-05	0.000E+00	2.007E-01
103	0.000E+00	0.000E+00	6.140E-04	0.000E+00	2.515E-05	2.219E-05	3.711E-06	5.155E-05	0.000E+00	3.327E-01
104	0.000E+00	0.000E+00	5.890E-04	0.000E+00	2.508E-05	2.131E-05	3.565E-06	4.945E-05	0.000E+00	3.173E-01
105	0.000E+00	0.000E+00	5.594E-04	0.000E+00	2.500E-05	2.026E-05	3.391E-06	4.697E-05	0.000E+00	3.003E-01
106	0.000E+00	0.000E+00	5.300E-04	0.000E+00	2.579E-05	1.927E-05	3.224E-06	4.450E-05	0.000E+00	2.839E-01
107	0.000E+00	0.000E+00	5.038E-04	0.000E+00	2.553E-05	1.831E-05	3.069E-06	4.230E-05	0.000E+00	2.703E-01
108	0.000E+00	0.000E+00	4.783E-04	0.000E+00	2.539E-05	1.740E-05	2.920E-06	4.017E-05	0.000E+00	2.583E-01
109	0.000E+00	0.000E+00	4.518E-04	0.000E+00	2.585E-05	1.649E-05	2.767E-06	3.795E-05	0.000E+00	2.465E-01
110	0.000E+00	0.000E+00	4.221E-04	0.000E+00	2.633E-05	1.550E-05	2.597E-06	3.546E-05	0.000E+00	2.356E-01
111	0.000E+00	0.000E+00	3.933E-04	0.000E+00	2.552E-05	1.446E-05	2.424E-06	3.303E-05	0.000E+00	2.260E-01
112	0.000E+00	0.000E+00	3.670E-04	0.000E+00	2.563E-05	1.358E-05	2.271E-06	3.083E-05	0.000E+00	2.183E-01
113	0.000E+00	0.000E+00	3.425E-04	0.000E+00	2.560E-05	1.275E-05	2.129E-06	2.878E-05	0.000E+00	2.124E-01
114	0.000E+00	0.000E+00	3.221E-04	0.000E+00	2.841E-05	1.202E-05	2.023E-06	2.707E-05	0.000E+00	2.080E-01
115	0.000E+00	0.000E+00	7.167E-04	0.000E+00	2.897E-05	2.596E-05	4.330E-06	6.017E-05	0.000E+00	3.458E-01
116	0.000E+00	0.000E+00	6.786E-04	0.000E+00	2.905E-05	2.464E-05	4.109E-06	5.698E-05	0.000E+00	3.285E-01

117	0.000E+00	0.000E+00	6.331E-04	0.000E+00	2.903E-05	2.300E-05	3.842E-06	5.316E-05	0.000E+00	3.103E-01
118	0.000E+00	0.000E+00	5.920E-04	0.000E+00	3.009E-05	2.158E-05	3.607E-06	4.971E-05	0.000E+00	2.936E-01
119	0.000E+00	0.000E+00	5.572E-04	0.000E+00	3.246E-05	2.074E-05	3.419E-06	4.680E-05	0.000E+00	2.808E-01
120	0.000E+00	0.000E+00	5.178E-04	0.000E+00	3.033E-05	1.899E-05	3.176E-06	4.349E-05	0.000E+00	2.673E-01
121	0.000E+00	0.000E+00	4.805E-04	0.000E+00	2.928E-05	1.761E-05	2.952E-06	4.036E-05	0.000E+00	2.545E-01
122	0.000E+00	0.000E+00	4.455E-04	0.000E+00	3.048E-05	1.650E-05	2.755E-06	3.743E-05	0.000E+00	2.433E-01
123	0.000E+00	0.000E+00	4.132E-04	0.000E+00	2.963E-05	1.534E-05	2.562E-06	3.472E-05	0.000E+00	2.336E-01
124	0.000E+00	0.000E+00	3.884E-04	0.000E+00	3.376E-05	1.465E-05	2.438E-06	3.264E-05	0.000E+00	2.269E-01
125	0.000E+00	0.000E+00	3.604E-04	0.000E+00	3.062E-05	1.343E-05	2.258E-06	3.029E-05	0.000E+00	2.211E-01
126	0.000E+00	0.000E+00	3.343E-04	0.000E+00	2.867E-05	1.246E-05	2.096E-06	2.810E-05	0.000E+00	2.166E-01
127	0.000E+00	0.000E+00	8.617E-04	0.000E+00	3.410E-05	3.132E-05	5.204E-06	7.235E-05	0.000E+00	3.590E-01
128	0.000E+00	0.000E+00	8.028E-04	0.000E+00	3.413E-05	2.921E-05	4.860E-06	6.740E-05	0.000E+00	3.402E-01
129	0.000E+00	0.000E+00	7.277E-04	0.000E+00	3.511E-05	2.655E-05	4.426E-06	6.110E-05	0.000E+00	3.212E-01
130	0.000E+00	0.000E+00	6.708E-04	0.000E+00	4.294E-05	2.463E-05	4.132E-06	5.635E-05	0.000E+00	3.046E-01
131	0.000E+00	0.000E+00	6.116E-04	0.000E+00	4.225E-05	2.249E-05	3.782E-06	5.138E-05	0.000E+00	2.899E-01
132	0.000E+00	0.000E+00	5.589E-04	0.000E+00	4.111E-05	2.087E-05	3.471E-06	4.696E-05	0.000E+00	2.769E-01
133	0.000E+00	0.000E+00	5.082E-04	0.000E+00	3.407E-05	1.879E-05	3.139E-06	4.269E-05	0.000E+00	2.628E-01
134	0.000E+00	0.000E+00	4.723E-04	0.000E+00	3.755E-05	1.752E-05	2.945E-06	3.969E-05	0.000E+00	2.520E-01
135	0.000E+00	0.000E+00	4.381E-04	0.000E+00	3.604E-05	1.628E-05	2.738E-06	3.682E-05	0.000E+00	2.427E-01
136	0.000E+00	0.000E+00	4.065E-04	0.000E+00	3.284E-05	1.509E-05	2.538E-06	3.416E-05	0.000E+00	2.358E-01
137	0.000E+00	0.000E+00	3.767E-04	0.000E+00	3.104E-05	1.401E-05	2.355E-06	3.166E-05	0.000E+00	2.307E-01
138	0.000E+00	0.000E+00	3.492E-04	0.000E+00	2.931E-05	1.300E-05	2.186E-06	2.935E-05	0.000E+00	2.262E-01
139	0.000E+00	0.000E+00	1.095E-03	0.000E+00	4.768E-05	4.032E-05	6.640E-06	9.197E-05	0.000E+00	3.738E-01
140	0.000E+00	0.000E+00	1.005E-03	0.000E+00	4.876E-05	3.675E-05	6.116E-06	8.442E-05	0.000E+00	3.531E-01
141	0.000E+00	0.000E+00	8.607E-04	0.000E+00	4.879E-05	3.152E-05	5.270E-06	7.229E-05	0.000E+00	3.326E-01
142	0.000E+00	0.000E+00	7.385E-04	0.000E+00	4.777E-05	2.707E-05	4.551E-06	6.204E-05	0.000E+00	3.138E-01
143	0.000E+00	0.000E+00	6.551E-04	0.000E+00	4.604E-05	2.409E-05	4.055E-06	5.504E-05	0.000E+00	2.992E-01
144	0.000E+00	0.000E+00	5.912E-04	0.000E+00	4.478E-05	2.184E-05	3.676E-06	4.968E-05	0.000E+00	2.859E-01
145	0.000E+00	0.000E+00	5.394E-04	0.000E+00	4.202E-05	1.998E-05	3.359E-06	4.532E-05	0.000E+00	2.728E-01
146	0.000E+00	0.000E+00	4.976E-04	0.000E+00	3.973E-05	1.845E-05	3.104E-06	4.181E-05	0.000E+00	2.615E-01
147	0.000E+00	0.000E+00	4.602E-04	0.000E+00	3.662E-05	1.707E-05	2.870E-06	3.867E-05	0.000E+00	2.531E-01
148	0.000E+00	0.000E+00	4.259E-04	0.000E+00	3.386E-05	1.580E-05	2.656E-06	3.579E-05	0.000E+00	2.468E-01
149	0.000E+00	0.000E+00	3.951E-04	0.000E+00	3.152E-05	1.466E-05	2.465E-06	3.320E-05	0.000E+00	2.414E-01
150	0.000E+00	0.000E+00	3.660E-04	0.000E+00	2.929E-05	1.359E-05	2.284E-06	3.075E-05	0.000E+00	2.368E-01
151	0.000E+00	0.000E+00	5.685E-04	0.000E+00	4.539E-05	2.105E-05	3.546E-06	4.777E-05	0.000E+00	2.838E-01
152	0.000E+00	0.000E+00	5.259E-04	0.000E+00	4.075E-05	1.948E-05	3.275E-06	4.419E-05	0.000E+00	2.734E-01
153	0.000E+00	0.000E+00	4.879E-04	0.000E+00	3.709E-05	1.805E-05	3.034E-06	4.099E-05	0.000E+00	2.654E-01
154	0.000E+00	0.000E+00	4.502E-04	0.000E+00	3.624E-05	1.675E-05	2.810E-06	3.783E-05	0.000E+00	2.594E-01
155	0.000E+00	0.000E+00	4.207E-04	0.000E+00	3.187E-05	1.557E-05	2.616E-06	3.534E-05	0.000E+00	2.533E-01
156	0.000E+00	0.000E+00	3.881E-04	0.000E+00	3.016E-05	1.441E-05	2.417E-06	3.261E-05	0.000E+00	2.487E-01
157	0.000E+00	0.000E+00	2.970E-04	0.000E+00	2.435E-05	1.104E-05	1.856E-06	2.496E-05	0.000E+00	2.167E-01
158	0.000E+00	0.000E+00	3.046E-04	0.000E+00	2.329E-05	1.130E-05	1.895E-06	2.559E-05	0.000E+00	2.146E-01
159	0.000E+00	0.000E+00	2.993E-04	0.000E+00	1.439E-05	1.089E-05	1.820E-06	2.513E-05	0.000E+00	2.232E-01
160	0.000E+00	0.000E+00	2.918E-04	0.000E+00	1.291E-05	1.052E-05	1.768E-06	2.450E-05	0.000E+00	2.253E-01
161	0.000E+00	0.000E+00	2.773E-04	0.000E+00	1.224E-05	1.000E-05	1.680E-06	2.328E-05	0.000E+00	2.142E-01
162	0.000E+00	0.000E+00	2.637E-04	0.000E+00	1.199E-05	9.513E-06	1.599E-06	2.214E-05	0.000E+00	1.976E-01
163	0.000E+00	0.000E+00	2.531E-04	0.000E+00	1.203E-05	9.135E-06	1.537E-06	2.125E-05	0.000E+00	1.784E-01
164	0.000E+00	0.000E+00	2.352E-04	0.000E+00	1.205E-05	8.496E-06	1.433E-06	1.975E-05	0.000E+00	1.634E-01
165	0.000E+00	0.000E+00	2.111E-04	0.000E+00	1.202E-05	7.645E-06	1.292E-06	1.773E-05	0.000E+00	1.536E-01
166	0.000E+00	0.000E+00	1.858E-04	0.000E+00	1.139E-05	6.740E-06	1.141E-06	1.560E-05	0.000E+00	1.484E-01
167	0.000E+00	0.000E+00	1.660E-04	0.000E+00	1.022E-05	6.022E-06	1.020E-06	1.394E-05	0.000E+00	1.475E-01
168	0.000E+00	0.000E+00	3.750E-04	0.000E+00	1.765E-05	1.363E-05	2.278E-06	3.148E-05	0.000E+00	2.548E-01
169	0.000E+00	0.000E+00	3.758E-04	0.000E+00	1.660E-05	1.356E-05	2.277E-06	3.156E-05	0.000E+00	2.632E-01
170	0.000E+00	0.000E+00	3.598E-04	0.000E+00	1.547E-05	1.298E-05	2.178E-06	3.021E-05	0.000E+00	2.574E-01
171	0.000E+00	0.000E+00	3.374E-04	0.000E+00	1.509E-05	1.218E-05	2.045E-06	2.833E-05	0.000E+00	2.354E-01
172	0.000E+00	0.000E+00	3.167E-04	0.000E+00	1.500E-05	1.143E-05	1.924E-06	2.659E-05	0.000E+00	2.115E-01
173	0.000E+00	0.000E+00	2.950E-04	0.000E+00	1.514E-05	1.067E-05	1.798E-06	2.477E-05	0.000E+00	1.891E-01
174	0.000E+00	0.000E+00	2.620E-04	0.000E+00	1.552E-05	9.521E-06	1.607E-06	2.200E-05	0.000E+00	1.753E-01
175	0.000E+00	0.000E+00	2.271E-04	0.000E+00	1.551E-05	8.324E-06	1.403E-06	1.908E-05	0.000E+00	1.670E-01
176	0.000E+00	0.000E+00	1.965E-04	0.000E+00	1.279E-05	7.160E-06	1.211E-06	1.651E-05	0.000E+00	1.640E-01
177	0.000E+00	0.000E+00	1.743E-04	0.000E+00	1.111E-05	6.351E-06	1.073E-06	1.464E-05	0.000E+00	1.602E-01
178	0.000E+00	0.000E+00	5.029E-04	0.000E+00	2.995E-05	1.889E-05	3.091E-06	4.224E-05	0.000E+00	3.129E-01
179	0.000E+00	0.000E+00	4.888E-04	0.000E+00	2.079E-05	1.771E-05	2.959E-06	4.104E-05	0.000E+00	3.087E-01
180	0.000E+00	0.000E+00	4.578E-04	0.000E+00	1.961E-05	1.652E-05	2.771E-06	3.844E-05	0.000E+00	2.880E-01
181	0.000E+00	0.000E+00	4.175E-04	0.000E+00	1.968E-05	1.510E-05	2.536E-06	3.505E-05	0.000E+00	2.543E-01
182	0.000E+00	0.000E+00	3.838E-04	0.000E+00	2.178E-05	1.406E-05	2.350E-06	3.223E-05	0.000E+00	2.260E-01
183	0.000E+00	0.000E+00	3.355E-04	0.000E+00	1.972E-05	1.221E-05	2.057E-06	2.818E-05	0.000E+00	2.042E-01
184	0.000E+00	0.000E+00	2.913E-04	0.000E+00	2.561E-05	1.088E-05	1.829E-06	2.448E-05	0.000E+00	1.918E-01
185	0.000E+00	0.000E+00	2.443E-04	0.000E+00	2.038E-05	9.193E-06	1.529E-06	2.053E-05	0.000E+00	1.841E-01
186	0.000E+00	0.000E+00	2.094E-04	0.000E+00	1.501E-05	7.730E-06	1.298E-06	1.760E-05	0.000E+00	1.801E-01
187	0.000E+00	0.000E+00	1.852E-04	0.000E+00	1.154E-05	6.763E-06	1.139E-06	1.555E-05	0.000E+00	1.711E-01
188	0.000E+00	0.000E+00	7.079E-04	0.000E+00	3.989E-05	2.601E-05	4.334E-06	5.945E-05	0.000E+00	3.803E-01
189	0.000E+00	0.000E+00	6.816E-04	0.000E+00	2.741E-05	2.473E-05	4.118E-06	5.722E-05	0.000E+00	3.526E-01
190	0.000E+00	0.000E+00	6.130E-04	0.000E+00	2.696E-05	2.224E-05	3.714E-06	5.147E-05	0.000E+00	3.140E-01
191	0.000E+00	0.000E+00	5.298E-04	0.000E+00	2.847E-05	1.936E-05	3.236E-06	4.449E-05	0.000E+00	2.751E-01
192	0.000E+00	0.000E+00	4.496E-04	0.000E+00	2.773E-05	1.650E-05	2.764E-06	3.776E-05	0.000E+00	2.448E-01
193	0.000E+00	0.000E+00	3.762E-04	0.000E+00	2.824E-05	1.401E-05	2.339E-06	3.161E-05	0.000E+00	2.223E-01
194	0.000E+00	0.000E+00	3.166E-04	0.000E+00	2.743E-05	1.180E-05	1.986E-06	2.660E-05	0.000E+00	2.102E-01
195	0.000E+00	0.000E+00	2.638E-04	0.000E+00	2.118E-05	9.904E-06	1.647E-06	2.217E-05	0.000E+00	2.042E-01
196	0.000E+00	0.000E+00	2.292E-04	0.000E+00	1.785E-05	8.749E-06	1.430E-06	1.926E-05	0.000E+00	1.960E-01
197	0.000E+00	0.000E+00	1.955E-04	0.000E+00	1.167E-05	7.174E-06	1.200E-06	1.642E-05	0.000E+00	1.793E-01
198	0.000E+00	0.000E+00	1.153E-03	0.000E+00	5.171E-05	4.213E-05	6.992E-06	9.678E-05	0.000E+00	4.455E-01
199	0.000E+00	0.000E+00	1.130E-03	0.000E+00	4.271E-05	4.160E-05	6.820E-06	9.487E-05	0.000E+00	3.932E-01
200	0.000E+00	0.000E+00	9.324E-04	0.000E+00	4.830E-05	3.412E-05	5.688E-06	7.831E-05	0.000E+00	3.427E-01
201	0.000E+00	0.000E+00	5.181E-04	0.000E+00	4.172E-05	1.919E-05	3.234E-06	4.354E-05	0.000E+00	2.666E-01
202	0.000E+00	0.000E+00	3.530E-04	0.000E+00	2.840E-05	1.312E-05	2.203E-06	2.966E-05	0.000E+00	2.350E-01
203	0.000E+00	0.000E+00	2.931E-04	0.000E+00	2.472E-05	1.096E-05	1.836E-06	2.463E-05	0.000E+00	2.262E-01
204	0.000E+00	0.000E+00	2.421E-04	0.000E+00	1.412E-05	8.903E-06	1.485E-06	2.033E-05	0.000E+00	2.070E-01
205	0.000E+00	0.000E+00	1.974E-04	0.000E+00	1.053E-05	7.211E-06	1.205E-06	1.658E-05	0.000E+00	1.831E-01
206	0.000E+00	0.000E+00	1.908E-04	0.000E+00	9.649E-06	6.966E-06	1.162E-06	1.602E-05	0.000E+00	1.852E-01
207	0.000E+00	0.000E+00	1.779E-04	0.000E+00	1.376E-05	6.643E-06	1.108E-06	1.494E-05	0.000E+00	1.822E-01
208	0.000E+00	0.000E+00	1.733E-05	0.000E+00	1.345E-06	6.478E-07	1.080E-07	1.456E-06	0.000E+00	2.610E-02
209	0.000E+00	0.000E+00	1.995E-05	0.000E+00	1.468E-06	7.399E-07	1.239E-07	1.676E-06	0.000E+00	2.782E-02
210	0.000E+00	0.000E+00	2.350E-05	0.000E+00	1.681E-06	8.678E-07	1.456E-07	1.974E-06	0.000E+00	3.472E-02
211	0.000E+00	0.000E+00	2.783E-05	0.000E+00	1.894E-06	1.026E-06	1.720E-07	2.338E-06	0.000E+00	4.190E-02
212	0.000E+00	0.000E+00	3.358E-05	0.000E+00	2.146E-06	1.232E-06	2.068E-07	2.821E-06	0.000E+00	5.246E-02
213	0.000E+00	0.000E+00	4.217E-05	0.000E+00	2.573E-06	1.541E-06	2.590E-07	3.542E-06	0.000E+00	6.743E-02

214	0.000E+00	0.000E+00	5.415E-05	0.000E+00	3.090E-06	1.971E-06	3.316E-07	4.548E-06	0.000E+00	8.204E-02
215	0.000E+00	0.000E+00	7.011E-05	0.000E+00	3.805E-06	2.543E-06	4.283E-07	5.888E-06	0.000E+00	9.015E-02
216	0.000E+00	0.000E+00	8.376E-05	0.000E+00	4.552E-06	3.034E-06	5.116E-07	7.034E-06	0.000E+00	1.030E-01
217	0.000E+00	0.000E+00	9.695E-05	0.000E+00	5.013E-06	3.506E-06	5.909E-07	8.141E-06	0.000E+00	1.041E-01
218	0.000E+00	0.000E+00	1.040E-04	0.000E+00	5.249E-06	3.756E-06	6.331E-07	8.730E-06	0.000E+00	1.065E-01
219	0.000E+00	0.000E+00	1.074E-04	0.000E+00	5.417E-06	3.877E-06	6.540E-07	9.019E-06	0.000E+00	1.029E-01
220	0.000E+00	0.000E+00	1.006E-04	0.000E+00	5.277E-06	3.630E-06	6.134E-07	8.447E-06	0.000E+00	9.431E-02
221	0.000E+00	0.000E+00	9.258E-05	0.000E+00	4.744E-06	3.340E-06	5.640E-07	7.774E-06	0.000E+00	9.157E-02
222	0.000E+00	0.000E+00	8.619E-05	0.000E+00	4.063E-06	3.110E-06	5.234E-07	7.236E-06	0.000E+00	8.812E-02
223	0.000E+00	0.000E+00	8.563E-05	0.000E+00	4.084E-06	3.092E-06	5.203E-07	7.190E-06	0.000E+00	8.205E-02
224	0.000E+00	0.000E+00	8.507E-05	0.000E+00	4.451E-06	3.076E-06	5.187E-07	7.143E-06	0.000E+00	8.017E-02
225	0.000E+00	0.000E+00	8.266E-05	0.000E+00	4.892E-06	2.997E-06	5.068E-07	6.942E-06	0.000E+00	8.064E-02
226	0.000E+00	0.000E+00	7.814E-05	0.000E+00	4.845E-06	2.840E-06	4.802E-07	6.563E-06	0.000E+00	7.827E-02
227	0.000E+00	0.000E+00	1.689E-05	0.000E+00	1.449E-06	6.306E-07	1.059E-07	1.420E-06	0.000E+00	2.615E-02
228	0.000E+00	0.000E+00	2.010E-05	0.000E+00	1.597E-06	7.532E-07	1.254E-07	1.689E-06	0.000E+00	3.064E-02
229	0.000E+00	0.000E+00	2.379E-05	0.000E+00	1.766E-06	8.835E-07	1.478E-07	1.998E-06	0.000E+00	3.386E-02
230	0.000E+00	0.000E+00	2.854E-05	0.000E+00	2.013E-06	1.054E-06	1.767E-07	2.398E-06	0.000E+00	4.394E-02
231	0.000E+00	0.000E+00	3.473E-05	0.000E+00	2.299E-06	1.279E-06	2.143E-07	2.917E-06	0.000E+00	5.325E-02
232	0.000E+00	0.000E+00	4.351E-05	0.000E+00	2.665E-06	1.593E-06	2.674E-07	3.655E-06	0.000E+00	7.161E-02
233	0.000E+00	0.000E+00	5.709E-05	0.000E+00	3.280E-06	2.079E-06	3.497E-07	4.795E-06	0.000E+00	8.948E-02
234	0.000E+00	0.000E+00	7.613E-05	0.000E+00	4.127E-06	2.764E-06	4.651E-07	6.393E-06	0.000E+00	1.052E-01
235	0.000E+00	0.000E+00	9.628E-05	0.000E+00	5.121E-06	3.487E-06	5.876E-07	8.085E-06	0.000E+00	1.204E-01
236	0.000E+00	0.000E+00	1.151E-04	0.000E+00	5.922E-06	4.163E-06	7.016E-07	9.668E-06	0.000E+00	1.230E-01
237	0.000E+00	0.000E+00	1.266E-04	0.000E+00	6.306E-06	4.572E-06	7.704E-07	1.063E-05	0.000E+00	1.231E-01
238	0.000E+00	0.000E+00	1.289E-04	0.000E+00	6.477E-06	4.650E-06	7.844E-07	1.082E-05	0.000E+00	1.186E-01
239	0.000E+00	0.000E+00	1.196E-04	0.000E+00	6.203E-06	4.314E-06	7.288E-07	1.004E-05	0.000E+00	1.084E-01
240	0.000E+00	0.000E+00	1.105E-04	0.000E+00	5.364E-06	3.985E-06	6.715E-07	9.274E-06	0.000E+00	1.103E-01
241	0.000E+00	0.000E+00	1.066E-04	0.000E+00	4.907E-06	3.846E-06	6.466E-07	8.947E-06	0.000E+00	1.009E-01
242	0.000E+00	0.000E+00	1.056E-04	0.000E+00	5.233E-06	3.815E-06	6.426E-07	8.868E-06	0.000E+00	9.553E-02
243	0.000E+00	0.000E+00	1.007E-04	0.000E+00	5.719E-06	3.645E-06	6.161E-07	8.455E-06	0.000E+00	9.242E-02
244	0.000E+00	0.000E+00	9.352E-05	0.000E+00	5.804E-06	3.396E-06	5.748E-07	7.855E-06	0.000E+00	9.037E-02
245	0.000E+00	0.000E+00	8.354E-05	0.000E+00	5.205E-06	3.038E-06	5.136E-07	7.016E-06	0.000E+00	8.523E-02
246	0.000E+00	0.000E+00	1.552E-05	0.000E+00	1.343E-06	5.833E-07	9.737E-08	1.304E-06	0.000E+00	2.450E-02
247	0.000E+00	0.000E+00	1.915E-05	0.000E+00	1.682E-06	7.162E-07	1.202E-07	1.609E-06	0.000E+00	3.079E-02
248	0.000E+00	0.000E+00	2.349E-05	0.000E+00	1.888E-06	8.812E-07	1.467E-07	1.974E-06	0.000E+00	3.683E-02
249	0.000E+00	0.000E+00	2.891E-05	0.000E+00	2.111E-06	1.072E-06	1.794E-07	2.429E-06	0.000E+00	4.313E-02
250	0.000E+00	0.000E+00	3.580E-05	0.000E+00	2.477E-06	1.322E-06	2.214E-07	3.007E-06	0.000E+00	5.625E-02
251	0.000E+00	0.000E+00	4.536E-05	0.000E+00	2.880E-06	1.664E-06	2.792E-07	3.810E-06	0.000E+00	7.369E-02
252	0.000E+00	0.000E+00	5.992E-05	0.000E+00	3.473E-06	2.186E-06	3.672E-07	5.032E-06	0.000E+00	1.001E-01
253	0.000E+00	0.000E+00	8.325E-05	0.000E+00	4.481E-06	3.023E-06	5.084E-07	6.991E-06	0.000E+00	1.242E-01
254	0.000E+00	0.000E+00	1.119E-04	0.000E+00	5.780E-06	4.052E-06	6.820E-07	9.394E-06	0.000E+00	1.430E-01
255	0.000E+00	0.000E+00	1.401E-04	0.000E+00	7.100E-06	5.064E-06	8.534E-07	1.177E-05	0.000E+00	1.489E-01
256	0.000E+00	0.000E+00	1.584E-04	0.000E+00	7.785E-06	5.721E-06	9.637E-07	1.330E-05	0.000E+00	1.449E-01
257	0.000E+00	0.000E+00	1.587E-04	0.000E+00	7.951E-06	5.725E-06	9.658E-07	1.332E-05	0.000E+00	1.367E-01
258	0.000E+00	0.000E+00	1.490E-04	0.000E+00	7.459E-06	5.372E-06	9.066E-07	1.251E-05	0.000E+00	1.339E-01
259	0.000E+00	0.000E+00	1.396E-04	0.000E+00	6.422E-06	5.034E-06	8.467E-07	1.172E-05	0.000E+00	1.311E-01
260	0.000E+00	0.000E+00	1.366E-04	0.000E+00	6.362E-06	4.932E-06	8.295E-07	1.147E-05	0.000E+00	1.178E-01
261	0.000E+00	0.000E+00	1.278E-04	0.000E+00	6.823E-06	4.621E-06	7.799E-07	1.073E-05	0.000E+00	1.096E-01
262	0.000E+00	0.000E+00	1.151E-04	0.000E+00	7.069E-06	4.174E-06	7.067E-07	9.663E-06	0.000E+00	1.053E-01
263	0.000E+00	0.000E+00	1.019E-04	0.000E+00	6.318E-06	3.704E-06	6.263E-07	8.560E-06	0.000E+00	1.002E-01
264	0.000E+00	0.000E+00	8.631E-05	0.000E+00	5.178E-06	3.137E-06	5.296E-07	7.249E-06	0.000E+00	9.167E-02
265	0.000E+00	0.000E+00	1.559E-05	0.000E+00	1.442E-06	5.939E-07	9.835E-08	1.311E-06	0.000E+00	2.656E-02
266	0.000E+00	0.000E+00	1.817E-05	0.000E+00	1.573E-06	6.868E-07	1.141E-07	1.527E-06	0.000E+00	2.991E-02
267	0.000E+00	0.000E+00	2.231E-05	0.000E+00	1.934E-06	8.348E-07	1.400E-07	1.875E-06	0.000E+00	3.741E-02
268	0.000E+00	0.000E+00	2.800E-05	0.000E+00	2.259E-06	1.052E-06	1.749E-07	2.353E-06	0.000E+00	4.573E-02
269	0.000E+00	0.000E+00	3.606E-05	0.000E+00	2.608E-06	1.336E-06	2.237E-07	3.030E-06	0.000E+00	5.784E-02
270	0.000E+00	0.000E+00	4.685E-05	0.000E+00	3.058E-06	1.726E-06	2.889E-07	3.935E-06	0.000E+00	7.618E-02
271	0.000E+00	0.000E+00	6.349E-05	0.000E+00	3.782E-06	2.322E-06	3.896E-07	5.332E-06	0.000E+00	1.112E-01
272	0.000E+00	0.000E+00	9.041E-05	0.000E+00	4.834E-06	3.288E-06	5.520E-07	7.593E-06	0.000E+00	1.475E-01
273	0.000E+00	0.000E+00	1.325E-04	0.000E+00	6.723E-06	4.813E-06	8.072E-07	1.113E-05	0.000E+00	1.730E-01
274	0.000E+00	0.000E+00	1.782E-04	0.000E+00	1.103E-05	6.600E-06	1.096E-06	1.497E-05	0.000E+00	1.854E-01
275	0.000E+00	0.000E+00	2.072E-04	0.000E+00	1.062E-05	7.566E-06	1.263E-06	1.740E-05	0.000E+00	1.748E-01
276	0.000E+00	0.000E+00	2.067E-04	0.000E+00	1.017E-05	7.457E-06	1.257E-06	1.736E-05	0.000E+00	1.664E-01
277	0.000E+00	0.000E+00	1.962E-04	0.000E+00	9.099E-06	7.074E-06	1.191E-06	1.647E-05	0.000E+00	1.702E-01
278	0.000E+00	0.000E+00	1.848E-04	0.000E+00	8.355E-06	6.666E-06	1.120E-06	1.551E-05	0.000E+00	1.546E-01
279	0.000E+00	0.000E+00	1.735E-04	0.000E+00	8.644E-06	6.266E-06	1.056E-06	1.457E-05	0.000E+00	1.359E-01
280	0.000E+00	0.000E+00	1.494E-04	0.000E+00	8.856E-06	5.412E-06	9.162E-07	1.255E-05	0.000E+00	1.240E-01
281	0.000E+00	0.000E+00	1.273E-04	0.000E+00	7.848E-06	4.621E-06	7.819E-07	1.069E-05	0.000E+00	1.202E-01
282	0.000E+00	0.000E+00	1.062E-04	0.000E+00	6.278E-06	3.859E-06	6.514E-07	8.921E-06	0.000E+00	1.107E-01
283	0.000E+00	0.000E+00	8.479E-05	0.000E+00	4.892E-06	3.080E-06	5.194E-07	7.121E-06	0.000E+00	9.651E-02
284	0.000E+00	0.000E+00	1.593E-05	0.000E+00	1.498E-06	6.009E-07	1.005E-07	1.339E-06	0.000E+00	2.349E-02
285	0.000E+00	0.000E+00	1.859E-05	0.000E+00	1.758E-06	7.068E-07	1.174E-07	1.563E-06	0.000E+00	3.090E-02
286	0.000E+00	0.000E+00	2.217E-05	0.000E+00	1.905E-06	8.401E-07	1.391E-07	1.863E-06	0.000E+00	3.724E-02
287	0.000E+00	0.000E+00	2.756E-05	0.000E+00	2.239E-06	1.029E-06	1.722E-07	2.316E-06	0.000E+00	4.743E-02
288	0.000E+00	0.000E+00	3.508E-05	0.000E+00	2.708E-06	1.315E-06	2.185E-07	2.948E-06	0.000E+00	5.970E-02
289	0.000E+00	0.000E+00	4.701E-05	0.000E+00	3.278E-06	1.736E-06	2.909E-07	3.949E-06	0.000E+00	8.209E-02
290	0.000E+00	0.000E+00	6.592E-05	0.000E+00	4.081E-06	2.419E-06	4.053E-07	5.537E-06	0.000E+00	1.187E-01
291	0.000E+00	0.000E+00	9.917E-05	0.000E+00	5.281E-06	3.605E-06	6.054E-07	8.328E-06	0.000E+00	1.794E-01
292	0.000E+00	0.000E+00	1.671E-04	0.000E+00	1.440E-05	6.237E-06	1.048E-06	1.404E-05	0.000E+00	2.159E-01
293	0.000E+00	0.000E+00	2.358E-04	0.000E+00	1.109E-05	8.556E-06	1.432E-06	1.980E-05	0.000E+00	2.364E-01
294	0.000E+00	0.000E+00	1.354E-04	0.000E+00	7.879E-06	4.911E-06	8.295E-07	1.137E-05	0.000E+00	1.358E-01
295	0.000E+00	0.000E+00	1.044E-04	0.000E+00	5.862E-06	3.787E-06	6.386E-07	8.767E-06	0.000E+00	1.154E-01
296	0.000E+00	0.000E+00	7.802E-05	0.000E+00	4.383E-06	2.830E-06	4.773E-07	6.552E-06	0.000E+00	9.029E-02
297	0.000E+00	0.000E+00	1.438E-05	0.000E+00	1.424E-06	5.428E-07	9.111E-08	1.209E-06	0.000E+00	2.096E-02
298	0.000E+00	0.000E+00	1.742E-05	0.000E+00	1.736E-06	6.570E-07	1.104E-07	1.464E-06	0.000E+00	2.620E-02
299	0.000E+00	0.000E+00	2.128E-05	0.000E+00	2.134E-06	8.076E-07	1.350E-07	1.789E-06	0.000E+00	3.583E-02
300	0.000E+00	0.000E+00	2.612E-05	0.000E+00	2.355E-06	9.892E-07	1.644E-07	2.196E-06	0.000E+00	4.698E-02
301	0.000E+00	0.000E+00	3.393E-05	0.000E+00	2.716E-06	1.266E-06	2.118E-07	2.851E-06	0.000E+00	6.375E-02
302	0.000E+00	0.000E+00	4.650E-05	0.000E+00	3.310E-06	1.728E-06	2.882E-07	3.906E-06	0.000E+00	8.530E-02
303	0.000E+00	0.000E+00	6.761E-05	0.000E+00	4.276E-06	2.480E-06	4.161E-07	5.679E-06	0.000E+00	1.295E-01
304	0.000E+00	0.000E+00	1.069E-04	0.000E+00	5.879E-06	3.895E-06	6.537E-07	8.980E-06	0.000E+00	2.189E-01
305	0.000E+00	0.000E+00	1.960E-04	0.000E+00	9.456E-06	7.192E-06	1.193E-06	1.646E-05	0.000E+00	2.860E-01
306	0.000E+00	0.000E+00	1.367E-04	0.000E+00	7.167E-06	4.953E-06	8.336E-07	1.148E-05	0.000E+00	1.416E-01
307	0.000E+00	0.000E+00	9.765E-05	0.000E+00	5.124E-06	3.537E-06	5.956E-07	8.200E-06	0.000E+00	1.075E-01
308	0.000E+00	0.000E+00	7.232E-05	0.000E+00	3.774E-06	2.618E-06	4.410E-07	6.073E-06	0.000E+00	8.307E-02
309	0.000E+00	0.000E+00	1.170E-05	0.000E+00	1.420E-06	4.577E-07	7.555E-08	9.845E-07	0.000E+00	2.298E-02
310	0.000E+00	0.000E+00	1.460E-05	0.000E+00	1.583E-06	5.600E-07	9.323E-08	1.227E-06	0.000E+00	2.628E-02

311	0.000E+00	0.000E+00	1.850E-05	0.000E+00	1.871E-06	7.024E-07	1.174E-07	1.555E-06	0.000E+00	3.233E-02
312	0.000E+00	0.000E+00	2.375E-05	0.000E+00	2.274E-06	8.949E-07	1.501E-07	1.997E-06	0.000E+00	4.381E-02
313	0.000E+00	0.000E+00	3.088E-05	0.000E+00	2.780E-06	1.162E-06	1.943E-07	2.596E-06	0.000E+00	6.128E-02
314	0.000E+00	0.000E+00	4.288E-05	0.000E+00	3.421E-06	1.595E-06	2.675E-07	3.603E-06	0.000E+00	9.220E-02
315	0.000E+00	0.000E+00	6.370E-05	0.000E+00	4.499E-06	2.351E-06	3.945E-07	5.352E-06	0.000E+00	1.426E-01
316	0.000E+00	0.000E+00	1.068E-04	0.000E+00	6.308E-06	3.898E-06	6.551E-07	8.971E-06	0.000E+00	2.752E-01
317	0.000E+00	0.000E+00	2.344E-04	0.000E+00	1.033E-05	8.511E-06	1.421E-06	1.968E-05	0.000E+00	4.466E-01
318	0.000E+00	0.000E+00	1.252E-04	0.000E+00	6.429E-06	4.546E-06	7.631E-07	1.051E-05	0.000E+00	1.356E-01
319	0.000E+00	0.000E+00	8.532E-05	0.000E+00	4.497E-06	3.092E-06	5.205E-07	7.164E-06	0.000E+00	1.031E-01
320	0.000E+00	0.000E+00	6.370E-05	0.000E+00	3.384E-06	2.304E-06	3.887E-07	5.349E-06	0.000E+00	8.254E-02
321	0.000E+00	0.000E+00	1.008E-05	0.000E+00	1.345E-06	3.958E-07	6.567E-08	8.483E-07	0.000E+00	2.218E-02
322	0.000E+00	0.000E+00	1.209E-05	0.000E+00	1.682E-06	4.822E-07	7.917E-08	1.018E-06	0.000E+00	2.735E-02
323	0.000E+00	0.000E+00	1.461E-05	0.000E+00	1.810E-06	5.773E-07	9.454E-08	1.229E-06	0.000E+00	3.250E-02
324	0.000E+00	0.000E+00	1.858E-05	0.000E+00	1.983E-06	7.148E-07	1.186E-07	1.563E-06	0.000E+00	3.948E-02
325	0.000E+00	0.000E+00	2.528E-05	0.000E+00	2.440E-06	9.556E-07	1.599E-07	2.125E-06	0.000E+00	5.477E-02
326	0.000E+00	0.000E+00	3.581E-05	0.000E+00	3.289E-06	1.343E-06	2.256E-07	3.010E-06	0.000E+00	8.874E-02
327	0.000E+00	0.000E+00	5.399E-05	0.000E+00	4.283E-06	2.001E-06	3.367E-07	4.537E-06	0.000E+00	1.550E-01
328	0.000E+00	0.000E+00	9.433E-05	0.000E+00	6.522E-06	3.473E-06	5.834E-07	7.924E-06	0.000E+00	3.502E-01
329	0.000E+00	0.000E+00	2.350E-04	0.000E+00	1.141E-05	8.543E-06	1.429E-06	1.973E-05	0.000E+00	1.024E+00
330	0.000E+00	0.000E+00	1.074E-04	0.000E+00	5.332E-06	3.883E-06	6.538E-07	9.021E-06	0.000E+00	1.270E-01
331	0.000E+00	0.000E+00	7.804E-05	0.000E+00	4.060E-06	2.819E-06	4.758E-07	6.553E-06	0.000E+00	9.301E-02
332	0.000E+00	0.000E+00	6.161E-05	0.000E+00	3.289E-06	2.225E-06	3.760E-07	5.173E-06	0.000E+00	6.892E-02
333	0.000E+00	0.000E+00	9.424E-06	0.000E+00	9.118E-07	3.725E-07	5.977E-08	7.922E-07	0.000E+00	1.470E-02
334	0.000E+00	0.000E+00	1.092E-05	0.000E+00	1.070E-06	4.127E-07	6.916E-08	9.183E-07	0.000E+00	1.973E-02
335	0.000E+00	0.000E+00	1.297E-05	0.000E+00	1.320E-06	4.932E-07	8.238E-08	1.090E-06	0.000E+00	2.751E-02
336	0.000E+00	0.000E+00	1.595E-05	0.000E+00	1.699E-06	6.105E-07	1.017E-07	1.341E-06	0.000E+00	3.814E-02
337	0.000E+00	0.000E+00	2.042E-05	0.000E+00	2.301E-06	7.907E-07	1.309E-07	1.717E-06	0.000E+00	5.241E-02
338	0.000E+00	0.000E+00	2.742E-05	0.000E+00	2.914E-06	1.053E-06	1.749E-07	2.306E-06	0.000E+00	7.478E-02
339	0.000E+00	0.000E+00	4.256E-05	0.000E+00	4.075E-06	1.604E-06	2.690E-07	3.577E-06	0.000E+00	1.309E-01
340	0.000E+00	0.000E+00	7.692E-05	0.000E+00	6.251E-06	2.863E-06	4.805E-07	6.464E-06	0.000E+00	3.583E-01
341	0.000E+00	0.000E+00	2.932E-04	0.000E+00	1.258E-05	1.074E-05	1.776E-06	2.461E-05	0.000E+00	2.552E-01
342	0.000E+00	0.000E+00	1.417E-04	0.000E+00	6.914E-06	5.122E-06	8.614E-07	1.189E-05	0.000E+00	1.558E-01
343	0.000E+00	0.000E+00	9.534E-05	0.000E+00	4.929E-06	3.442E-06	5.810E-07	8.005E-06	0.000E+00	1.045E-01
344	0.000E+00	0.000E+00	7.109E-05	0.000E+00	3.780E-06	2.567E-06	4.338E-07	5.970E-06	0.000E+00	7.842E-02
345	0.000E+00	0.000E+00	5.531E-05	0.000E+00	2.998E-06	1.998E-06	3.377E-07	4.645E-06	0.000E+00	6.510E-02
346	0.000E+00	0.000E+00	8.469E-06	0.000E+00	1.211E-06	3.354E-07	5.558E-08	7.128E-07	0.000E+00	1.281E-02
347	0.000E+00	0.000E+00	9.549E-06	0.000E+00	1.128E-06	3.828E-07	6.159E-08	8.032E-07	0.000E+00	1.499E-02
348	0.000E+00	0.000E+00	1.122E-05	0.000E+00	1.191E-06	4.331E-07	7.155E-08	9.433E-07	0.000E+00	1.813E-02
349	0.000E+00	0.000E+00	1.358E-05	0.000E+00	1.286E-06	5.186E-07	8.584E-08	1.142E-06	0.000E+00	2.341E-02
350	0.000E+00	0.000E+00	1.717E-05	0.000E+00	1.504E-06	6.492E-07	1.079E-07	1.443E-06	0.000E+00	3.398E-02
351	0.000E+00	0.000E+00	2.296E-05	0.000E+00	1.945E-06	8.611E-07	1.438E-07	1.929E-06	0.000E+00	5.623E-02
352	0.000E+00	0.000E+00	3.419E-05	0.000E+00	2.941E-06	1.276E-06	2.144E-07	2.873E-06	0.000E+00	9.998E-02
353	0.000E+00	0.000E+00	5.724E-05	0.000E+00	5.255E-06	2.139E-06	3.605E-07	4.811E-06	0.000E+00	2.396E-01
354	0.000E+00	0.000E+00	2.040E-04	0.000E+00	8.241E-06	7.368E-06	1.232E-06	1.712E-05	0.000E+00	2.033E-01
355	0.000E+00	0.000E+00	1.131E-04	0.000E+00	5.410E-06	4.085E-06	6.874E-07	9.499E-06	0.000E+00	1.366E-01
356	0.000E+00	0.000E+00	7.744E-05	0.000E+00	3.992E-06	2.796E-06	4.719E-07	6.503E-06	0.000E+00	1.057E-01
357	0.000E+00	0.000E+00	5.866E-05	0.000E+00	3.127E-06	2.118E-06	3.579E-07	4.926E-06	0.000E+00	8.453E-02
358	0.000E+00	0.000E+00	4.747E-05	0.000E+00	2.547E-06	1.714E-06	2.897E-07	3.986E-06	0.000E+00	6.830E-02
359	0.000E+00	0.000E+00	7.514E-06	0.000E+00	1.078E-06	2.905E-07	4.926E-08	6.324E-07	0.000E+00	1.316E-02
360	0.000E+00	0.000E+00	8.745E-06	0.000E+00	1.207E-06	3.490E-07	5.722E-08	7.360E-07	0.000E+00	1.556E-02
361	0.000E+00	0.000E+00	1.005E-05	0.000E+00	1.037E-06	3.896E-07	6.397E-08	8.450E-07	0.000E+00	1.917E-02
362	0.000E+00	0.000E+00	1.218E-05	0.000E+00	1.107E-06	4.679E-07	7.678E-08	1.024E-06	0.000E+00	2.432E-02
363	0.000E+00	0.000E+00	1.523E-05	0.000E+00	1.253E-06	5.792E-07	9.532E-08	1.280E-06	0.000E+00	3.224E-02
364	0.000E+00	0.000E+00	1.985E-05	0.000E+00	1.464E-06	7.433E-07	1.233E-07	1.668E-06	0.000E+00	4.477E-02
365	0.000E+00	0.000E+00	2.686E-05	0.000E+00	1.913E-06	9.926E-07	1.664E-07	2.257E-06	0.000E+00	6.848E-02
366	0.000E+00	0.000E+00	4.236E-05	0.000E+00	2.910E-06	1.553E-06	2.618E-07	3.558E-06	0.000E+00	1.434E-01
367	0.000E+00	0.000E+00	9.534E-05	0.000E+00	6.100E-06	3.480E-06	5.870E-07	8.008E-06	0.000E+00	5.764E-01
368	0.000E+00	0.000E+00	3.231E-04	0.000E+00	2.157E-05	1.174E-05	1.993E-06	2.714E-05	0.000E+00	1.089E+00
369	0.000E+00	0.000E+00	2.549E-04	0.000E+00	1.146E-05	9.206E-06	1.545E-06	2.140E-05	0.000E+00	3.203E-01
370	0.000E+00	0.000E+00	1.495E-04	0.000E+00	6.764E-06	5.396E-06	9.064E-07	1.255E-05	0.000E+00	1.818E-01
371	0.000E+00	0.000E+00	9.456E-05	0.000E+00	4.530E-06	3.414E-06	5.746E-07	7.939E-06	0.000E+00	1.207E-01
372	0.000E+00	0.000E+00	6.615E-05	0.000E+00	3.344E-06	2.389E-06	4.028E-07	5.554E-06	0.000E+00	8.815E-02
373	0.000E+00	0.000E+00	4.989E-05	0.000E+00	2.607E-06	1.802E-06	3.042E-07	4.189E-06	0.000E+00	6.925E-02
374	0.000E+00	0.000E+00	4.025E-05	0.000E+00	2.162E-06	1.454E-06	2.457E-07	3.380E-06	0.000E+00	5.717E-02
375	0.000E+00	0.000E+00	7.254E-06	0.000E+00	9.722E-07	2.775E-07	4.721E-08	6.104E-07	0.000E+00	1.093E-02
376	0.000E+00	0.000E+00	8.451E-06	0.000E+00	1.105E-06	3.239E-07	5.487E-08	7.110E-07	0.000E+00	1.306E-02
377	0.000E+00	0.000E+00	9.995E-06	0.000E+00	1.222E-06	3.967E-07	6.462E-08	8.408E-07	0.000E+00	1.628E-02
378	0.000E+00	0.000E+00	1.170E-05	0.000E+00	9.747E-07	4.461E-07	7.332E-08	9.835E-07	0.000E+00	2.097E-02
379	0.000E+00	0.000E+00	1.473E-05	0.000E+00	1.125E-06	5.510E-07	9.167E-08	1.237E-06	0.000E+00	2.656E-02
380	0.000E+00	0.000E+00	1.877E-05	0.000E+00	1.446E-06	6.941E-07	1.168E-07	1.577E-06	0.000E+00	3.412E-02
381	0.000E+00	0.000E+00	2.522E-05	0.000E+00	1.927E-06	9.372E-07	1.569E-07	2.119E-06	0.000E+00	5.026E-02
382	0.000E+00	0.000E+00	3.676E-05	0.000E+00	2.512E-06	1.352E-06	2.272E-07	3.088E-06	0.000E+00	1.038E-01
383	0.000E+00	0.000E+00	7.172E-05	0.000E+00	4.514E-06	2.615E-06	4.412E-07	6.024E-06	0.000E+00	2.467E-01
384	0.000E+00	0.000E+00	1.431E-04	0.000E+00	1.041E-05	5.215E-06	8.872E-07	1.203E-05	0.000E+00	6.396E-01
385	0.000E+00	0.000E+00	1.805E-04	0.000E+00	1.360E-05	6.584E-06	1.121E-06	1.517E-05	0.000E+00	1.316E+00
386	0.000E+00	0.000E+00	1.990E-04	0.000E+00	1.420E-05	7.231E-06	1.232E-06	1.672E-05	0.000E+00	1.359E+00
387	0.000E+00	0.000E+00	1.898E-04	0.000E+00	1.191E-05	6.853E-06	1.167E-06	1.594E-05	0.000E+00	5.410E-01
388	0.000E+00	0.000E+00	1.587E-04	0.000E+00	8.522E-06	5.729E-06	9.684E-07	1.332E-05	0.000E+00	2.168E-01
389	0.000E+00	0.000E+00	1.176E-04	0.000E+00	5.968E-06	4.246E-06	7.162E-07	9.875E-06	0.000E+00	1.307E-01
390	0.000E+00	0.000E+00	8.325E-05	0.000E+00	4.231E-06	3.006E-06	5.070E-07	6.990E-06	0.000E+00	9.252E-02
391	0.000E+00	0.000E+00	6.175E-05	0.000E+00	3.120E-06	2.230E-06	3.760E-07	5.185E-06	0.000E+00	6.989E-02
392	0.000E+00	0.000E+00	4.717E-05	0.000E+00	2.418E-06	1.704E-06	2.874E-07	3.960E-06	0.000E+00	5.664E-02
393	0.000E+00	0.000E+00	3.793E-05	0.000E+00	2.013E-06	1.370E-06	2.314E-07	3.185E-06	0.000E+00	4.785E-02
394	0.000E+00	0.000E+00	7.295E-06	0.000E+00	8.836E-07	2.786E-07	4.702E-08	6.137E-07	0.000E+00	1.136E-02
395	0.000E+00	0.000E+00	8.798E-06	0.000E+00	1.022E-06	3.344E-07	5.649E-08	7.400E-07	0.000E+00	1.319E-02
396	0.000E+00	0.000E+00	1.066E-05	0.000E+00	1.305E-06	4.120E-07	6.881E-08	8.966E-07	0.000E+00	1.481E-02
397	0.000E+00	0.000E+00	1.236E-05	0.000E+00	1.275E-06	4.760E-07	7.867E-08	1.040E-06	0.000E+00	1.729E-02
398	0.000E+00	0.000E+00	1.417E-05	0.000E+00	1.315E-06	5.419E-07	8.942E-08	1.191E-06	0.000E+00	2.133E-02
399	0.000E+00	0.000E+00	1.676E-05	0.000E+00	1.412E-06	6.333E-07	1.050E-07	1.409E-06	0.000E+00	2.938E-02
400	0.000E+00	0.000E+00	2.162E-05	0.000E+00	1.548E-06	8.071E-07	1.341E-07	1.817E-06	0.000E+00	5.171E-02
401	0.000E+00	0.000E+00	3.227E-05	0.000E+00	2.062E-06	1.185E-06	1.987E-07	2.710E-06	0.000E+00	8.871E-02
402	0.000E+00	0.000E+00	5.743E-05	0.000E+00	3.707E-06	2.101E-06	3.538E-07	4.824E-06	0.000E+00	1.559E-01
403	0.000E+00	0.000E+00	9.290E-05	0.000E+00	6.709E-06	3.398E-06	5.757E-07	7.805E-06	0.000E+00	2.727E-01
404	0.000E+00	0.000E+00	1.209E-04	0.000E+00	8.804E-06	4.415E-06	7.493E-07	1.015E-05	0.000E+00	4.267E-01
405	0.000E+00	0.000E+00	1.342E-04	0.000E+00	1.002E-05	4.900E-06	8.331E-07	1.128E-05	0.000E+00	4.589E-01
406	0.000E+00	0.000E+00	1.314E-04	0.000E+00	8.366E-06	4.767E-06	8.086E-07	1.104E-05	0.000E+00	3.247E-01
407	0.000E+00	0.000E+00	1.148E-04	0.000E+00	6.677E-06	4.155E-06	7.035E-07	9.644E-06	0.000E+00	1.890E-01

408	0.000E+00	0.000E+00	9.245E-05	0.000E+00	4.939E-06	3.340E-06	5.642E-07	7.763E-06	0.000E+00	1.185E-01
409	0.000E+00	0.000E+00	7.232E-05	0.000E+00	3.906E-06	2.613E-06	4.416E-07	6.073E-06	0.000E+00	8.180E-02
410	0.000E+00	0.000E+00	5.745E-05	0.000E+00	3.089E-06	2.077E-06	3.507E-07	4.824E-06	0.000E+00	6.429E-02
411	0.000E+00	0.000E+00	4.603E-05	0.000E+00	2.410E-06	1.663E-06	2.807E-07	3.865E-06	0.000E+00	5.346E-02
412	0.000E+00	0.000E+00	3.667E-05	0.000E+00	1.935E-06	1.325E-06	2.237E-07	3.080E-06	0.000E+00	4.446E-02
413	0.000E+00	0.000E+00	1.231E-05	0.000E+00	1.256E-06	4.801E-07	7.835E-08	1.035E-06	0.000E+00	2.175E-02
414	0.000E+00	0.000E+00	1.077E-05	0.000E+00	1.005E-06	4.142E-07	6.799E-08	9.049E-07	0.000E+00	2.103E-02
415	0.000E+00	0.000E+00	1.010E-05	0.000E+00	9.014E-07	3.907E-07	6.362E-08	8.491E-07	0.000E+00	2.112E-02
416	0.000E+00	0.000E+00	1.470E-05	0.000E+00	1.164E-06	5.578E-07	9.180E-08	1.236E-06	0.000E+00	3.199E-02
417	0.000E+00	0.000E+00	1.353E-05	0.000E+00	1.028E-06	5.163E-07	8.429E-08	1.137E-06	0.000E+00	2.958E-02
418	0.000E+00	0.000E+00	1.401E-05	0.000E+00	1.084E-06	5.231E-07	8.724E-08	1.177E-06	0.000E+00	2.353E-02
419	0.000E+00	0.000E+00	1.929E-05	0.000E+00	1.288E-06	7.208E-07	1.192E-07	1.621E-06	0.000E+00	4.471E-02
420	0.000E+00	0.000E+00	1.971E-05	0.000E+00	1.442E-06	7.317E-07	1.223E-07	1.656E-06	0.000E+00	3.545E-02
421	0.000E+00	0.000E+00	1.848E-05	0.000E+00	1.573E-06	6.959E-07	1.158E-07	1.553E-06	0.000E+00	3.320E-02
422	0.000E+00	0.000E+00	2.971E-05	0.000E+00	2.040E-06	1.094E-06	1.837E-07	2.496E-06	0.000E+00	6.916E-02
423	0.000E+00	0.000E+00	2.723E-05	0.000E+00	1.963E-06	1.019E-06	1.689E-07	2.287E-06	0.000E+00	6.023E-02
424	0.000E+00	0.000E+00	2.552E-05	0.000E+00	1.934E-06	9.526E-07	1.587E-07	2.144E-06	0.000E+00	5.239E-02
425	0.000E+00	0.000E+00	4.797E-05	0.000E+00	3.262E-06	1.762E-06	2.964E-07	4.030E-06	0.000E+00	1.129E-01
426	0.000E+00	0.000E+00	4.176E-05	0.000E+00	2.967E-06	1.537E-06	2.586E-07	3.508E-06	0.000E+00	8.970E-02
427	0.000E+00	0.000E+00	3.747E-05	0.000E+00	2.725E-06	1.383E-06	2.324E-07	3.148E-06	0.000E+00	7.680E-02
428	0.000E+00	0.000E+00	7.108E-05	0.000E+00	5.081E-06	2.607E-06	4.403E-07	5.972E-06	0.000E+00	1.731E-01
429	0.000E+00	0.000E+00	5.826E-05	0.000E+00	4.145E-06	2.143E-06	3.608E-07	4.894E-06	0.000E+00	1.261E-01
430	0.000E+00	0.000E+00	4.908E-05	0.000E+00	3.531E-06	1.809E-06	3.042E-07	4.123E-06	0.000E+00	9.574E-02
431	0.000E+00	0.000E+00	8.882E-05	0.000E+00	6.371E-06	3.246E-06	5.502E-07	7.462E-06	0.000E+00	2.456E-01
432	0.000E+00	0.000E+00	6.854E-05	0.000E+00	4.961E-06	2.510E-06	4.248E-07	5.758E-06	0.000E+00	1.632E-01
433	0.000E+00	0.000E+00	5.549E-05	0.000E+00	4.027E-06	2.035E-06	3.440E-07	4.662E-06	0.000E+00	1.189E-01
434	0.000E+00	0.000E+00	9.744E-05	0.000E+00	7.079E-06	3.549E-06	6.039E-07	8.186E-06	0.000E+00	2.563E-01
435	0.000E+00	0.000E+00	7.513E-05	0.000E+00	5.202E-06	2.735E-06	4.644E-07	6.311E-06	0.000E+00	1.733E-01
436	0.000E+00	0.000E+00	6.005E-05	0.000E+00	4.041E-06	2.189E-06	3.706E-07	5.044E-06	0.000E+00	1.281E-01
437	0.000E+00	0.000E+00	9.825E-05	0.000E+00	6.722E-06	3.594E-06	6.070E-07	8.253E-06	0.000E+00	2.096E-01
438	0.000E+00	0.000E+00	7.619E-05	0.000E+00	5.260E-06	2.782E-06	4.709E-07	6.400E-06	0.000E+00	1.463E-01
439	0.000E+00	0.000E+00	6.109E-05	0.000E+00	4.066E-06	2.227E-06	3.768E-07	5.131E-06	0.000E+00	1.114E-01
440	0.000E+00	0.000E+00	8.861E-05	0.000E+00	5.560E-06	3.223E-06	5.449E-07	7.442E-06	0.000E+00	1.510E-01
441	0.000E+00	0.000E+00	7.161E-05	0.000E+00	4.929E-06	2.626E-06	4.427E-07	6.016E-06	0.000E+00	1.196E-01
442	0.000E+00	0.000E+00	5.919E-05	0.000E+00	4.111E-06	2.164E-06	3.660E-07	4.972E-06	0.000E+00	9.637E-02
443	0.000E+00	0.000E+00	7.500E-05	0.000E+00	4.874E-06	2.770E-06	4.624E-07	6.300E-06	0.000E+00	1.119E-01
444	0.000E+00	0.000E+00	6.295E-05	0.000E+00	4.675E-06	2.348E-06	3.912E-07	5.289E-06	0.000E+00	9.494E-02
445	0.000E+00	0.000E+00	5.317E-05	0.000E+00	3.514E-06	1.943E-06	3.279E-07	4.466E-06	0.000E+00	7.715E-02
446	0.000E+00	0.000E+00	6.214E-05	0.000E+00	3.556E-06	2.258E-06	3.805E-07	5.218E-06	0.000E+00	8.127E-02
447	0.000E+00	0.000E+00	5.305E-05	0.000E+00	2.968E-06	1.923E-06	3.245E-07	4.455E-06	0.000E+00	7.713E-02
448	0.000E+00	0.000E+00	4.604E-05	0.000E+00	2.737E-06	1.675E-06	2.824E-07	3.867E-06	0.000E+00	6.774E-02
449	0.000E+00	0.000E+00	5.123E-05	0.000E+00	2.845E-06	1.851E-06	3.132E-07	4.302E-06	0.000E+00	6.107E-02
450	0.000E+00	0.000E+00	4.489E-05	0.000E+00	2.528E-06	1.623E-06	2.746E-07	3.769E-06	0.000E+00	6.048E-02
451	0.000E+00	0.000E+00	3.981E-05	0.000E+00	2.280E-06	1.444E-06	2.438E-07	3.343E-06	0.000E+00	5.761E-02

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** PREDICTED ANNUAL CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	Pb	Mn	Hg	Ni	NAPTH	PAH	PROPL	Se	TOL	XYLEN
1	1.272E-05	6.924E-05	0.000E+00	2.035E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2	1.894E-05	1.043E-04	0.000E+00	3.061E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	1.879E-05	1.036E-04	0.000E+00	3.039E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	2.448E-05	1.342E-04	0.000E+00	3.941E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	2.471E-05	1.355E-04	0.000E+00	3.978E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6	2.249E-05	1.230E-04	0.000E+00	3.614E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7	1.988E-05	1.089E-04	0.000E+00	3.199E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8	2.020E-05	1.097E-04	0.000E+00	3.225E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9	2.108E-05	1.140E-04	0.000E+00	3.354E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
10	2.630E-05	1.440E-04	0.000E+00	4.229E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
11	1.079E-05	5.891E-05	0.000E+00	1.731E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
12	4.715E-05	2.556E-04	0.000E+00	7.517E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
13	2.108E-05	1.109E-04	0.000E+00	3.273E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
14	2.126E-05	1.118E-04	0.000E+00	3.301E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
15	2.073E-05	1.090E-04	0.000E+00	3.216E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
16	2.353E-05	1.239E-04	0.000E+00	3.656E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
17	1.197E-05	6.514E-05	0.000E+00	1.915E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
18	1.822E-05	9.824E-05	0.000E+00	2.891E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
19	1.840E-05	9.778E-05	0.000E+00	2.883E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
20	2.570E-05	1.370E-04	0.000E+00	4.037E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
21	1.931E-05	1.008E-04	0.000E+00	2.979E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
22	1.828E-05	9.431E-05	0.000E+00	2.791E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
23	1.831E-05	9.412E-05	0.000E+00	2.786E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
24	1.814E-05	9.343E-05	0.000E+00	2.765E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
25	1.816E-05	9.400E-05	0.000E+00	2.780E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
26	1.857E-05	9.875E-05	0.000E+00	2.911E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
27	1.877E-05	1.010E-04	0.000E+00	2.972E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
28	1.998E-05	1.078E-04	0.000E+00	3.171E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
29	2.547E-05	1.366E-04	0.000E+00	4.023E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
30	2.709E-05	1.448E-04	0.000E+00	4.264E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
31	2.845E-05	1.515E-04	0.000E+00	4.464E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
32	2.870E-05	1.521E-04	0.000E+00	4.485E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

33	3.192E-05	1.684E-04	0.000E+00	4.969E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
34	3.539E-05	1.862E-04	0.000E+00	5.495E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
35	3.775E-05	1.985E-04	0.000E+00	5.858E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
36	3.918E-05	2.067E-04	0.000E+00	6.100E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
37	3.914E-05	2.072E-04	0.000E+00	6.112E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
38	3.780E-05	2.013E-04	0.000E+00	5.932E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
39	4.634E-05	2.457E-04	0.000E+00	7.246E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
40	5.894E-05	3.114E-04	0.000E+00	9.186E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
41	8.206E-05	4.266E-04	0.000E+00	1.261E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
42	1.273E-04	6.540E-04	0.000E+00	1.936E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
43	1.060E-04	5.553E-04	0.000E+00	1.640E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
44	9.063E-05	5.037E-04	0.000E+00	1.477E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
45	8.509E-05	4.854E-04	0.000E+00	1.419E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
46	5.463E-05	3.083E-04	0.000E+00	9.022E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
47	8.218E-05	4.561E-04	0.000E+00	1.337E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
48	1.027E-04	5.911E-04	0.000E+00	1.726E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
49	1.214E-04	6.988E-04	0.000E+00	2.040E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
50	1.306E-04	7.482E-04	0.000E+00	2.186E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
51	7.119E-05	3.970E-04	0.000E+00	1.164E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
52	4.763E-05	2.637E-04	0.000E+00	7.734E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
53	3.461E-05	1.911E-04	0.000E+00	5.608E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
54	2.993E-05	1.566E-04	0.000E+00	4.626E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
55	3.110E-05	1.673E-04	0.000E+00	4.924E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
56	3.394E-05	1.820E-04	0.000E+00	5.359E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
57	3.461E-05	1.905E-04	0.000E+00	5.593E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
58	4.359E-05	2.390E-04	0.000E+00	7.020E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
59	5.739E-05	3.010E-04	0.000E+00	8.887E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
60	6.867E-05	3.597E-04	0.000E+00	1.062E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
61	8.174E-05	4.302E-04	0.000E+00	1.270E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
62	9.596E-05	5.054E-04	0.000E+00	1.491E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
63	1.130E-04	5.892E-04	0.000E+00	1.741E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
64	1.042E-04	5.430E-04	0.000E+00	1.605E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
65	1.203E-04	6.359E-04	0.000E+00	1.876E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
66	1.469E-04	7.901E-04	0.000E+00	2.325E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
67	1.934E-04	1.070E-03	0.000E+00	3.139E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
68	2.051E-04	1.144E-03	0.000E+00	3.351E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
69	2.063E-04	1.145E-03	0.000E+00	3.358E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
70	2.023E-04	1.120E-03	0.000E+00	3.286E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
71	1.335E-04	7.280E-04	0.000E+00	2.139E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
72	9.966E-05	5.340E-04	0.000E+00	1.573E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
73	7.384E-05	4.027E-04	0.000E+00	1.183E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
74	6.452E-05	3.382E-04	0.000E+00	9.987E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
75	5.732E-05	3.092E-04	0.000E+00	9.097E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
76	5.024E-05	2.766E-04	0.000E+00	8.117E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
77	4.330E-05	2.386E-04	0.000E+00	7.002E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
78	3.876E-05	2.064E-04	0.000E+00	6.082E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
79	4.591E-05	2.394E-04	0.000E+00	7.073E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
80	4.719E-05	2.610E-04	0.000E+00	7.656E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
81	5.467E-05	3.051E-04	0.000E+00	8.941E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
82	6.347E-05	3.579E-04	0.000E+00	1.047E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
83	6.967E-05	3.938E-04	0.000E+00	1.152E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
84	7.543E-05	4.269E-04	0.000E+00	1.249E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
85	8.011E-05	4.538E-04	0.000E+00	1.328E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
86	7.801E-05	4.402E-04	0.000E+00	1.288E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
87	4.251E-05	2.332E-04	0.000E+00	6.847E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
88	2.887E-05	1.555E-04	0.000E+00	4.577E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
89	2.130E-05	1.133E-04	0.000E+00	3.340E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
90	2.021E-05	1.066E-04	0.000E+00	3.144E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
91	9.126E-05	5.087E-04	0.000E+00	1.491E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
92	8.853E-05	4.927E-04	0.000E+00	1.444E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
93	8.543E-05	4.741E-04	0.000E+00	1.390E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
94	8.240E-05	4.548E-04	0.000E+00	1.334E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
95	7.929E-05	4.360E-04	0.000E+00	1.280E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
96	7.629E-05	4.187E-04	0.000E+00	1.229E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
97	7.392E-05	4.027E-04	0.000E+00	1.184E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
98	6.937E-05	3.787E-04	0.000E+00	1.113E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
99	6.681E-05	3.599E-04	0.000E+00	1.059E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
100	6.281E-05	3.372E-04	0.000E+00	9.929E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
101	6.057E-05	3.198E-04	0.000E+00	9.435E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
102	5.959E-05	3.060E-04	0.000E+00	9.060E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
103	1.041E-04	5.811E-04	0.000E+00	1.703E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
104	1.003E-04	5.581E-04	0.000E+00	1.636E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
105	9.580E-05	5.309E-04	0.000E+00	1.557E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
106	9.171E-05	5.046E-04	0.000E+00	1.481E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
107	8.763E-05	4.804E-04	0.000E+00	1.411E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
108	8.372E-05	4.570E-04	0.000E+00	1.343E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
109	7.992E-05	4.330E-04	0.000E+00	1.273E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
110	7.565E-05	4.062E-04	0.000E+00	1.196E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
111	7.092E-05	3.792E-04	0.000E+00	1.117E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
112	6.699E-05	3.551E-04	0.000E+00	1.047E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
113	6.328E-05	3.327E-04	0.000E+00	9.821E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
114	6.147E-05	3.162E-04	0.000E+00	9.359E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
115	1.214E-04	6.779E-04	0.000E+00	1.986E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
116	1.156E-04	6.431E-04	0.000E+00	1.885E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
117	1.088E-04	6.014E-04	0.000E+00	1.764E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
118	1.030E-04	5.645E-04	0.000E+00	1.658E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
119	9.882E-05	5.345E-04	0.000E+00	1.572E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
120	9.191E-05	4.968E-04	0.000E+00	1.461E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
121	8.579E-05	4.618E-04	0.000E+00	1.359E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
122	8.106E-05	4.307E-04	0.000E+00	1.270E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
123	7.578E-05	4.005E-04	0.000E+00	1.181E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
124	7.389E-05	3.808E-04	0.000E+00	1.127E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
125	6.825E-05	3.529E-04	0.000E+00	1.044E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
126	6.343E-05	3.275E-04	0.000E+00	9.690E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
127	1.456E-04	8.146E-04	0.000E+00	2.386E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
128	1.367E-04	7.606E-04	0.000E+00	2.230E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
129	1.258E-04	6.926E-04	0.000E+00	2.033E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

130	1.207E-04	6.463E-04	0.000E+00	1.904E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
131	1.114E-04	5.916E-04	0.000E+00	1.744E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
132	1.030E-04	5.424E-04	0.000E+00	1.601E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
133	9.215E-05	4.908E-04	0.000E+00	1.447E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
134	8.828E-05	4.605E-04	0.000E+00	1.361E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
135	8.243E-05	4.281E-04	0.000E+00	1.266E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
136	7.621E-05	3.967E-04	0.000E+00	1.173E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
137	7.091E-05	3.681E-04	0.000E+00	1.088E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
138	6.597E-05	3.417E-04	0.000E+00	1.010E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
139	1.870E-04	1.039E-03	0.000E+00	3.045E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
140	1.739E-04	9.570E-04	0.000E+00	2.809E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
141	1.520E-04	8.246E-04	0.000E+00	2.425E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
142	1.331E-04	7.119E-04	0.000E+00	2.097E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
143	1.197E-04	6.342E-04	0.000E+00	1.870E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
144	1.095E-04	5.748E-04	0.000E+00	1.697E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
145	1.004E-04	5.253E-04	0.000E+00	1.552E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
146	9.308E-05	4.853E-04	0.000E+00	1.434E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
147	8.603E-05	4.487E-04	0.000E+00	1.326E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
148	7.961E-05	4.153E-04	0.000E+00	1.227E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
149	7.390E-05	3.853E-04	0.000E+00	1.139E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
150	6.850E-05	3.570E-04	0.000E+00	1.055E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
151	1.063E-04	5.544E-04	0.000E+00	1.638E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
152	9.783E-05	5.120E-04	0.000E+00	1.512E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
153	9.042E-05	4.744E-04	0.000E+00	1.401E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
154	8.435E-05	4.393E-04	0.000E+00	1.298E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
155	7.792E-05	4.090E-04	0.000E+00	1.207E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
156	7.223E-05	3.779E-04	0.000E+00	1.116E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
157	5.584E-05	2.901E-04	0.000E+00	8.576E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
158	5.652E-05	2.963E-04	0.000E+00	8.749E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
159	5.171E-05	2.848E-04	0.000E+00	8.359E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
160	4.992E-05	2.769E-04	0.000E+00	8.119E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
161	4.743E-05	2.631E-04	0.000E+00	7.715E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
162	4.525E-05	2.504E-04	0.000E+00	7.346E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
163	4.367E-05	2.407E-04	0.000E+00	7.065E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
164	4.097E-05	2.244E-04	0.000E+00	6.589E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
165	3.732E-05	2.023E-04	0.000E+00	5.949E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
166	3.321E-05	1.786E-04	0.000E+00	5.258E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
167	2.969E-05	1.596E-04	0.000E+00	4.699E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
168	6.461E-05	3.565E-04	0.000E+00	1.046E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
169	6.428E-05	3.566E-04	0.000E+00	1.046E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
170	6.135E-05	3.411E-04	0.000E+00	9.999E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
171	5.779E-05	3.202E-04	0.000E+00	9.392E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
172	5.462E-05	3.012E-04	0.000E+00	8.839E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
173	5.141E-05	2.815E-04	0.000E+00	8.267E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
174	4.658E-05	2.515E-04	0.000E+00	7.399E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
175	4.130E-05	2.195E-04	0.000E+00	6.471E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
176	3.546E-05	1.895E-04	0.000E+00	5.582E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
177	3.135E-05	1.679E-04	0.000E+00	4.946E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
178	8.949E-05	4.829E-04	0.000E+00	1.421E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
179	8.324E-05	4.632E-04	0.000E+00	1.358E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
180	7.803E-05	4.339E-04	0.000E+00	1.272E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
181	7.196E-05	3.970E-04	0.000E+00	1.165E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
182	6.780E-05	3.677E-04	0.000E+00	1.081E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
183	5.958E-05	3.219E-04	0.000E+00	9.471E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
184	5.555E-05	2.859E-04	0.000E+00	8.461E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
185	4.609E-05	2.389E-04	0.000E+00	7.064E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
186	3.841E-05	2.030E-04	0.000E+00	5.988E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
187	3.317E-05	1.782E-04	0.000E+00	5.245E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
188	1.249E-04	6.780E-04	0.000E+00	1.993E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
189	1.154E-04	6.447E-04	0.000E+00	1.889E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
190	1.048E-04	5.815E-04	0.000E+00	1.705E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
191	9.289E-05	5.064E-04	0.000E+00	1.488E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
192	8.043E-05	4.324E-04	0.000E+00	1.273E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
193	6.956E-05	3.655E-04	0.000E+00	1.079E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
194	6.019E-05	3.103E-04	0.000E+00	9.183E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
195	4.940E-05	2.574E-04	0.000E+00	7.606E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
196	4.267E-05	2.232E-04	0.000E+00	6.592E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
197	3.480E-05	1.877E-04	0.000E+00	5.524E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
198	1.975E-04	1.094E-03	0.000E+00	3.209E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
199	1.900E-04	1.067E-03	0.000E+00	3.124E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
200	1.627E-04	8.899E-04	0.000E+00	2.614E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
201	9.708E-05	5.056E-04	0.000E+00	1.494E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
202	6.613E-05	3.444E-04	0.000E+00	1.018E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
203	5.542E-05	2.868E-04	0.000E+00	8.484E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
204	4.295E-05	2.323E-04	0.000E+00	6.832E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
205	3.457E-05	1.886E-04	0.000E+00	5.543E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
206	3.318E-05	1.819E-04	0.000E+00	5.342E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
207	3.308E-05	1.731E-04	0.000E+00	5.114E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
208	3.225E-06	1.688E-05	0.000E+00	4.985E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
209	3.676E-06	1.937E-05	0.000E+00	5.715E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
210	4.307E-06	2.277E-05	0.000E+00	6.716E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
211	5.059E-06	2.690E-05	0.000E+00	7.929E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
212	6.041E-06	3.235E-05	0.000E+00	9.529E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
213	7.531E-06	4.053E-05	0.000E+00	1.193E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
214	9.575E-06	5.189E-05	0.000E+00	1.526E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
215	1.231E-05	6.704E-05	0.000E+00	1.970E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
216	1.471E-05	8.010E-05	0.000E+00	2.354E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
217	1.691E-05	9.252E-05	0.000E+00	2.718E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
218	1.808E-05	9.912E-05	0.000E+00	2.911E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
219	1.867E-05	1.024E-04	0.000E+00	3.007E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
220	1.758E-05	9.605E-05	0.000E+00	2.822E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
221	1.613E-05	8.831E-05	0.000E+00	2.594E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
222	1.485E-05	8.196E-05	0.000E+00	2.405E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
223	1.478E-05	8.146E-05	0.000E+00	2.391E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
224	1.486E-05	8.122E-05	0.000E+00	2.386E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
225	1.469E-05	7.934E-05	0.000E+00	2.334E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
226	1.399E-05	7.517E-05	0.000E+00	2.213E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

227	3.205E-06	1.655E-05	0.000E+00	4.896E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
228	3.756E-06	1.959E-05	0.000E+00	5.789E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
229	4.390E-06	2.310E-05	0.000E+00	6.817E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
230	5.220E-06	2.764E-05	0.000E+00	8.151E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
231	6.283E-06	3.352E-05	0.000E+00	9.876E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
232	7.776E-06	4.184E-05	0.000E+00	1.231E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
233	1.011E-05	5.473E-05	0.000E+00	1.610E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
234	1.336E-05	7.280E-05	0.000E+00	2.139E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
235	1.686E-05	9.199E-05	0.000E+00	2.703E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
236	2.007E-05	1.098E-04	0.000E+00	3.226E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
237	2.197E-05	1.206E-04	0.000E+00	3.542E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
238	2.239E-05	1.228E-04	0.000E+00	3.607E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
239	2.086E-05	1.141E-04	0.000E+00	3.352E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
240	1.911E-05	1.051E-04	0.000E+00	3.086E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
241	1.831E-05	1.012E-04	0.000E+00	2.970E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
242	1.832E-05	1.006E-04	0.000E+00	2.954E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
243	1.779E-05	9.646E-05	0.000E+00	2.836E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
244	1.675E-05	8.996E-05	0.000E+00	2.648E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
245	1.497E-05	8.038E-05	0.000E+00	2.366E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
246	2.950E-06	1.521E-05	0.000E+00	4.501E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
247	3.651E-06	1.879E-05	0.000E+00	5.561E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
248	4.400E-06	2.292E-05	0.000E+00	6.772E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
249	5.319E-06	2.805E-05	0.000E+00	8.276E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
250	6.525E-06	3.463E-05	0.000E+00	1.021E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
251	8.151E-06	4.368E-05	0.000E+00	1.286E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
252	1.062E-05	5.746E-05	0.000E+00	1.690E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
253	1.460E-05	7.958E-05	0.000E+00	2.339E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
254	1.951E-05	1.068E-04	0.000E+00	3.136E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
255	2.437E-05	1.336E-04	0.000E+00	3.924E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
256	2.745E-05	1.509E-04	0.000E+00	4.430E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
257	2.756E-05	1.512E-04	0.000E+00	4.440E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
258	2.587E-05	1.420E-04	0.000E+00	4.169E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
259	2.398E-05	1.326E-04	0.000E+00	3.890E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
260	2.352E-05	1.299E-04	0.000E+00	3.811E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
261	2.238E-05	1.221E-04	0.000E+00	3.588E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
262	2.057E-05	1.106E-04	0.000E+00	3.256E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
263	1.825E-05	9.804E-05	0.000E+00	2.886E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
264	1.537E-05	8.290E-05	0.000E+00	2.439E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
265	3.005E-06	1.535E-05	0.000E+00	4.548E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
266	3.455E-06	1.782E-05	0.000E+00	5.272E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
267	4.242E-06	2.187E-05	0.000E+00	6.472E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
268	5.248E-06	2.733E-05	0.000E+00	8.076E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
269	6.624E-06	3.497E-05	0.000E+00	1.032E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
270	8.457E-06	4.518E-05	0.000E+00	1.331E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
271	1.130E-05	6.096E-05	0.000E+00	1.794E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
272	1.584E-05	8.640E-05	0.000E+00	2.539E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
273	2.305E-05	1.264E-04	0.000E+00	3.711E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
274	3.190E-05	1.714E-04	0.000E+00	5.047E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
275	3.610E-05	1.977E-04	0.000E+00	5.806E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
276	3.582E-05	1.969E-04	0.000E+00	5.780E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
277	3.375E-05	1.864E-04	0.000E+00	5.470E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
278	3.169E-05	1.755E-04	0.000E+00	5.146E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
279	3.011E-05	1.653E-04	0.000E+00	4.854E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
280	2.657E-05	1.434E-04	0.000E+00	4.220E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
281	2.277E-05	1.224E-04	0.000E+00	3.603E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
282	1.888E-05	1.020E-04	0.000E+00	3.000E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
283	1.502E-05	8.130E-05	0.000E+00	2.391E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
284	3.081E-06	1.570E-05	0.000E+00	4.653E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
285	3.601E-06	1.834E-05	0.000E+00	5.435E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
286	4.208E-06	2.172E-05	0.000E+00	6.428E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
287	5.173E-06	2.691E-05	0.000E+00	7.953E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
288	6.521E-06	3.415E-05	0.000E+00	1.008E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
289	8.580E-06	4.549E-05	0.000E+00	1.341E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
290	1.180E-05	6.341E-05	0.000E+00	1.867E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
291	1.737E-05	9.476E-05	0.000E+00	2.784E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
292	3.173E-05	1.637E-04	0.000E+00	4.845E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
293	4.063E-05	2.242E-04	0.000E+00	6.579E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
294	2.401E-05	1.298E-04	0.000E+00	3.819E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
295	1.842E-05	9.997E-05	0.000E+00	2.939E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
296	1.376E-05	7.471E-05	0.000E+00	2.197E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
297	2.814E-06	1.423E-05	0.000E+00	4.222E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
298	3.414E-06	1.724E-05	0.000E+00	5.116E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
299	4.177E-06	2.108E-05	0.000E+00	6.255E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
300	5.008E-06	2.568E-05	0.000E+00	7.604E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
301	6.351E-06	3.310E-05	0.000E+00	9.780E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
302	8.517E-06	4.505E-05	0.000E+00	1.329E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
303	1.214E-05	6.510E-05	0.000E+00	1.917E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
304	1.881E-05	1.023E-04	0.000E+00	3.007E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
305	3.388E-05	1.866E-04	0.000E+00	5.476E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
306	2.388E-05	1.305E-04	0.000E+00	3.834E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
307	1.706E-05	9.324E-05	0.000E+00	2.739E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
308	1.263E-05	6.904E-05	0.000E+00	2.028E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
309	2.408E-06	1.178E-05	0.000E+00	3.509E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
310	2.919E-06	1.455E-05	0.000E+00	4.324E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
311	3.637E-06	1.833E-05	0.000E+00	5.441E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
312	4.613E-06	2.345E-05	0.000E+00	6.951E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
313	5.918E-06	3.035E-05	0.000E+00	8.988E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
314	8.020E-06	4.182E-05	0.000E+00	1.236E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
315	1.165E-05	6.169E-05	0.000E+00	1.819E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
316	1.898E-05	1.025E-04	0.000E+00	3.016E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
317	4.008E-05	2.224E-04	0.000E+00	6.521E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
318	2.182E-05	1.195E-04	0.000E+00	3.509E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
319	1.492E-05	8.148E-05	0.000E+00	2.394E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
320	1.115E-05	6.085E-05	0.000E+00	1.788E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
321	2.129E-06	1.023E-05	0.000E+00	3.057E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
322	2.585E-06	1.233E-05	0.000E+00	3.686E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
323	3.022E-06	1.473E-05	0.000E+00	4.390E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

324	3.701E-06	1.850E-05	0.000E+00	5.496E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
325	4.918E-06	2.497E-05	0.000E+00	7.403E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
326	6.892E-06	3.525E-05	0.000E+00	1.044E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
327	1.009E-05	5.264E-05	0.000E+00	1.555E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
328	1.719E-05	9.124E-05	0.000E+00	2.690E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
329	4.065E-05	2.237E-04	0.000E+00	6.565E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
330	1.864E-05	1.024E-04	0.000E+00	3.005E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
331	1.362E-05	7.449E-05	0.000E+00	2.188E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
332	1.079E-05	5.887E-05	0.000E+00	1.730E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
333	1.835E-06	9.310E-06	0.000E+00	2.760E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
334	2.132E-06	1.080E-05	0.000E+00	3.203E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
335	2.554E-06	1.286E-05	0.000E+00	3.817E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
336	3.176E-06	1.588E-05	0.000E+00	4.717E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
337	4.122E-06	2.041E-05	0.000E+00	6.072E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
338	5.456E-06	2.728E-05	0.000E+00	8.106E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
339	8.265E-06	4.201E-05	0.000E+00	1.245E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
340	1.444E-05	7.510E-05	0.000E+00	2.220E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
341	4.997E-05	2.779E-04	0.000E+00	8.146E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
342	2.452E-05	1.349E-04	0.000E+00	3.959E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
343	1.663E-05	9.098E-05	0.000E+00	2.673E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
344	1.245E-05	6.792E-05	0.000E+00	1.996E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
345	9.709E-06	5.288E-05	0.000E+00	1.554E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
346	1.825E-06	8.658E-06	0.000E+00	2.590E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
347	1.951E-06	9.586E-06	0.000E+00	2.854E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
348	2.231E-06	1.116E-05	0.000E+00	3.316E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
349	2.632E-06	1.340E-05	0.000E+00	3.971E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
350	3.272E-06	1.684E-05	0.000E+00	4.985E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
351	4.345E-06	2.247E-05	0.000E+00	6.648E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
352	6.491E-06	3.350E-05	0.000E+00	9.913E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
353	1.102E-05	5.633E-05	0.000E+00	1.669E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
354	3.454E-05	1.930E-04	0.000E+00	5.654E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
355	1.954E-05	1.076E-04	0.000E+00	3.159E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
356	1.350E-05	7.389E-05	0.000E+00	2.170E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
357	1.027E-05	5.605E-05	0.000E+00	1.647E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
358	8.321E-06	4.537E-05	0.000E+00	1.333E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
359	1.621E-06	7.685E-06	0.000E+00	2.299E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
360	1.865E-06	8.909E-06	0.000E+00	2.663E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
361	1.986E-06	9.977E-06	0.000E+00	2.962E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
362	2.339E-06	1.198E-05	0.000E+00	3.548E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
363	2.866E-06	1.488E-05	0.000E+00	4.400E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
364	3.659E-06	1.927E-05	0.000E+00	5.688E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
365	4.921E-06	2.603E-05	0.000E+00	7.677E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
366	7.712E-06	4.096E-05	0.000E+00	1.208E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
367	1.715E-05	9.185E-05	0.000E+00	2.705E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
368	5.854E-05	3.119E-04	0.000E+00	9.192E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
369	4.368E-05	2.420E-04	0.000E+00	7.097E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
370	2.564E-05	1.419E-04	0.000E+00	4.163E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
371	1.633E-05	8.997E-05	0.000E+00	2.641E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
372	1.150E-05	6.307E-05	0.000E+00	1.852E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
373	8.713E-06	4.763E-05	0.000E+00	1.399E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
374	7.057E-06	3.847E-05	0.000E+00	1.131E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
375	1.534E-06	7.368E-06	0.000E+00	2.201E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
376	1.775E-06	8.563E-06	0.000E+00	2.556E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
377	2.061E-06	1.006E-05	0.000E+00	2.999E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
378	2.207E-06	1.144E-05	0.000E+00	3.384E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
379	2.732E-06	1.432E-05	0.000E+00	4.230E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
380	3.487E-06	1.826E-05	0.000E+00	5.394E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
381	4.679E-06	2.453E-05	0.000E+00	7.244E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
382	6.686E-06	3.553E-05	0.000E+00	1.047E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
383	1.287E-05	6.904E-05	0.000E+00	2.033E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
384	2.632E-05	1.388E-04	0.000E+00	4.097E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
385	3.340E-05	1.755E-04	0.000E+00	5.180E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
386	3.647E-05	1.928E-04	0.000E+00	5.688E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
387	3.405E-05	1.827E-04	0.000E+00	5.380E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
388	2.781E-05	1.516E-04	0.000E+00	4.456E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
389	2.046E-05	1.122E-04	0.000E+00	3.294E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
390	1.449E-05	7.939E-05	0.000E+00	2.332E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
391	1.074E-05	5.887E-05	0.000E+00	1.729E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
392	8.217E-06	4.499E-05	0.000E+00	1.322E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
393	6.639E-06	3.623E-05	0.000E+00	1.065E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
394	1.500E-06	7.339E-06	0.000E+00	2.187E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
395	1.790E-06	8.819E-06	0.000E+00	2.625E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
396	2.198E-06	1.073E-05	0.000E+00	3.199E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
397	2.442E-06	1.227E-05	0.000E+00	3.644E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
398	2.733E-06	1.396E-05	0.000E+00	4.135E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
399	3.169E-06	1.640E-05	0.000E+00	4.851E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
400	3.965E-06	2.096E-05	0.000E+00	6.182E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
401	5.805E-06	3.108E-05	0.000E+00	9.155E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
402	1.035E-05	5.535E-05	0.000E+00	1.630E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
403	1.706E-05	9.007E-05	0.000E+00	2.657E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
404	2.223E-05	1.172E-04	0.000E+00	3.459E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
405	2.479E-05	1.304E-04	0.000E+00	3.848E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
406	2.363E-05	1.266E-04	0.000E+00	3.728E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
407	2.036E-05	1.101E-04	0.000E+00	3.240E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
408	1.620E-05	8.834E-05	0.000E+00	2.596E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
409	1.269E-05	6.914E-05	0.000E+00	2.032E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
410	1.007E-05	5.492E-05	0.000E+00	1.614E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
411	8.042E-06	4.395E-05	0.000E+00	1.291E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
412	6.414E-06	3.503E-05	0.000E+00	1.029E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
413	2.426E-06	1.221E-05	0.000E+00	3.625E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
414	2.079E-06	1.061E-05	0.000E+00	3.143E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
415	1.932E-06	9.923E-06	0.000E+00	2.938E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
416	2.746E-06	1.433E-05	0.000E+00	4.235E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
417	2.507E-06	1.316E-05	0.000E+00	3.884E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
418	2.604E-06	1.363E-05	0.000E+00	4.026E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
419	3.496E-06	1.863E-05	0.000E+00	5.489E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
420	3.628E-06	1.912E-05	0.000E+00	5.643E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

421	3.500E-06	1.809E-05	0.000E+00	5.352E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
422	5.408E-06	2.873E-05	0.000E+00	8.469E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
423	4.999E-06	2.640E-05	0.000E+00	7.788E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
424	4.727E-06	2.481E-05	0.000E+00	7.325E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
425	8.718E-06	4.636E-05	0.000E+00	1.367E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
426	7.646E-06	4.045E-05	0.000E+00	1.193E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
427	6.890E-06	3.635E-05	0.000E+00	1.072E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
428	1.303E-05	6.888E-05	0.000E+00	2.032E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
429	1.067E-05	5.644E-05	0.000E+00	1.665E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
430	9.007E-06	4.758E-05	0.000E+00	1.404E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
431	1.629E-05	8.609E-05	0.000E+00	2.540E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
432	1.259E-05	6.646E-05	0.000E+00	1.961E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
433	1.020E-05	5.382E-05	0.000E+00	1.588E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
434	1.791E-05	9.451E-05	0.000E+00	2.788E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
435	1.370E-05	7.268E-05	0.000E+00	2.143E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
436	1.089E-05	5.800E-05	0.000E+00	1.709E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
437	1.787E-05	9.498E-05	0.000E+00	2.800E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
438	1.388E-05	7.369E-05	0.000E+00	2.173E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
439	1.106E-05	5.897E-05	0.000E+00	1.738E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
440	1.589E-05	8.529E-05	0.000E+00	2.511E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
441	1.304E-05	6.926E-05	0.000E+00	2.042E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
442	1.080E-05	5.727E-05	0.000E+00	1.689E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
443	1.353E-05	7.232E-05	0.000E+00	2.130E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
444	1.162E-05	6.114E-05	0.000E+00	1.804E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
445	9.618E-06	5.131E-05	0.000E+00	1.512E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
446	1.099E-05	5.955E-05	0.000E+00	1.751E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
447	9.354E-06	5.080E-05	0.000E+00	1.493E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
448	8.190E-06	4.420E-05	0.000E+00	1.301E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
449	9.023E-06	4.903E-05	0.000E+00	1.441E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
450	7.922E-06	4.299E-05	0.000E+00	1.264E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
451	7.043E-06	3.816E-05	0.000E+00	1.122E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00

*** PREDICTED ANNUAL CONCENTRATIONS (ug/m3) FROM ALL SOURCES ***

RECEPTOR	Zn	NTXPM
1	9.288E-06	8.843E-01
2	1.406E-05	1.332E+00
3	1.396E-05	1.323E+00
4	1.806E-05	1.714E+00
5	1.822E-05	1.730E+00
6	1.654E-05	1.571E+00
7	1.466E-05	1.391E+00
8	1.470E-05	1.401E+00
9	1.525E-05	1.456E+00
10	1.936E-05	1.839E+00
11	7.910E-06	7.523E-01
12	3.423E-05	3.265E+00
13	1.465E-05	1.416E+00
14	1.477E-05	1.428E+00
15	1.439E-05	1.391E+00
16	1.637E-05	1.582E+00
17	8.736E-06	8.319E-01
18	1.312E-05	1.255E+00
19	1.298E-05	1.249E+00
20	1.821E-05	1.750E+00
21	1.328E-05	1.288E+00
22	1.235E-05	1.204E+00
23	1.231E-05	1.202E+00
24	1.223E-05	1.193E+00
25	1.233E-05	1.200E+00
26	1.311E-05	1.261E+00
27	1.347E-05	1.290E+00
28	1.440E-05	1.376E+00
29	1.821E-05	1.745E+00
30	1.926E-05	1.849E+00
31	2.012E-05	1.935E+00
32	2.016E-05	1.942E+00
33	2.228E-05	2.151E+00
34	2.461E-05	2.378E+00
35	2.622E-05	2.534E+00
36	2.736E-05	2.640E+00
37	2.746E-05	2.647E+00
38	2.674E-05	2.570E+00
39	3.259E-05	3.138E+00
40	4.123E-05	3.977E+00
41	5.607E-05	5.448E+00
42	8.548E-05	8.352E+00
43	7.323E-05	7.092E+00
44	6.815E-05	6.433E+00
45	6.638E-05	6.200E+00

46	4.197E-05	3.937E+00
47	6.167E-05	5.825E+00
48	8.109E-05	7.549E+00
49	9.589E-05	8.925E+00
50	1.025E-04	9.556E+00
51	5.380E-05	5.071E+00
52	3.562E-05	3.368E+00
53	2.579E-05	2.441E+00
54	2.065E-05	2.000E+00
55	2.232E-05	2.136E+00
56	2.426E-05	2.325E+00
57	2.568E-05	2.433E+00
58	3.216E-05	3.053E+00
59	3.972E-05	3.844E+00
60	4.743E-05	4.593E+00
61	5.687E-05	5.495E+00
62	6.681E-05	6.454E+00
63	7.755E-05	7.525E+00
64	7.145E-05	6.935E+00
65	8.422E-05	8.122E+00
66	1.054E-04	1.009E+01
67	1.445E-04	1.367E+01
68	1.549E-04	1.460E+01
69	1.549E-04	1.463E+01
70	1.513E-04	1.431E+01
71	9.770E-05	9.297E+00
72	7.115E-05	6.820E+00
73	5.405E-05	5.142E+00
74	4.462E-05	4.320E+00
75	4.131E-05	3.949E+00
76	3.727E-05	3.532E+00
77	3.217E-05	3.047E+00
78	2.742E-05	2.636E+00
79	3.151E-05	3.057E+00
80	3.524E-05	3.333E+00
81	4.136E-05	3.897E+00
82	4.871E-05	4.571E+00
83	5.365E-05	5.029E+00
84	5.819E-05	5.452E+00
85	6.189E-05	5.796E+00
86	5.993E-05	5.622E+00
87	3.138E-05	2.978E+00
88	2.077E-05	1.986E+00
89	1.505E-05	1.447E+00
90	1.410E-05	1.361E+00
91	6.892E-05	6.497E+00
92	6.670E-05	6.292E+00
93	6.411E-05	6.055E+00
94	6.136E-05	5.808E+00
95	5.872E-05	5.568E+00
96	5.635E-05	5.347E+00
97	5.404E-05	5.144E+00
98	5.086E-05	4.837E+00
99	4.805E-05	4.596E+00
100	4.497E-05	4.307E+00
101	4.232E-05	4.084E+00
102	4.000E-05	3.908E+00
103	7.875E-05	7.421E+00
104	7.554E-05	7.127E+00
105	7.175E-05	6.781E+00
106	6.798E-05	6.444E+00
107	6.462E-05	6.135E+00
108	6.136E-05	5.836E+00
109	5.797E-05	5.530E+00
110	5.416E-05	5.188E+00
111	5.046E-05	4.842E+00
112	4.709E-05	4.536E+00
113	4.396E-05	4.249E+00
114	4.135E-05	4.038E+00
115	9.192E-05	8.658E+00
116	8.704E-05	8.214E+00
117	8.120E-05	7.681E+00
118	7.594E-05	7.210E+00
119	7.149E-05	6.826E+00
120	6.643E-05	6.345E+00
121	6.165E-05	5.898E+00
122	5.717E-05	5.501E+00
123	5.303E-05	5.115E+00
124	4.986E-05	4.864E+00
125	4.627E-05	4.507E+00
126	4.292E-05	4.183E+00
127	1.105E-04	1.040E+01
128	1.030E-04	9.714E+00
129	9.334E-05	8.845E+00
130	8.608E-05	8.255E+00
131	7.848E-05	7.555E+00
132	7.173E-05	6.928E+00
133	6.522E-05	6.269E+00
134	6.062E-05	5.881E+00
135	5.624E-05	5.467E+00
136	5.218E-05	5.067E+00
137	4.836E-05	4.702E+00
138	4.483E-05	4.364E+00
139	1.405E-04	1.326E+01
140	1.290E-04	1.222E+01
141	1.104E-04	1.053E+01
142	9.476E-05	9.092E+00

143	8.407E-05	8.100E+00
144	7.588E-05	7.341E+00
145	6.923E-05	6.708E+00
146	6.386E-05	6.197E+00
147	5.907E-05	5.731E+00
148	5.467E-05	5.304E+00
149	5.072E-05	4.921E+00
150	4.698E-05	4.560E+00
151	7.297E-05	7.081E+00
152	6.751E-05	6.539E+00
153	6.262E-05	6.059E+00
154	5.779E-05	5.610E+00
155	5.399E-05	5.223E+00
156	4.981E-05	4.826E+00
157	3.812E-05	3.705E+00
158	3.909E-05	3.784E+00
159	3.839E-05	3.637E+00
160	3.743E-05	3.536E+00
161	3.557E-05	3.360E+00
162	3.382E-05	3.198E+00
163	3.246E-05	3.075E+00
164	3.017E-05	2.865E+00
165	2.709E-05	2.584E+00
166	2.384E-05	2.281E+00
167	2.130E-05	2.039E+00
168	4.810E-05	4.553E+00
169	4.821E-05	4.554E+00
170	4.615E-05	4.356E+00
171	4.328E-05	4.090E+00
172	4.063E-05	3.847E+00
173	3.785E-05	3.595E+00
174	3.361E-05	3.212E+00
175	2.914E-05	2.803E+00
176	2.522E-05	2.420E+00
177	2.237E-05	2.145E+00
178	6.453E-05	6.167E+00
179	6.270E-05	5.915E+00
180	5.872E-05	5.542E+00
181	5.355E-05	5.070E+00
182	4.924E-05	4.696E+00
183	4.304E-05	4.111E+00
184	3.740E-05	3.651E+00
185	3.136E-05	3.051E+00
186	2.688E-05	2.592E+00
187	2.376E-05	2.275E+00
188	9.082E-05	8.659E+00
189	8.742E-05	8.233E+00
190	7.862E-05	7.426E+00
191	6.797E-05	6.468E+00
192	5.768E-05	5.522E+00
193	4.828E-05	4.669E+00
194	4.064E-05	3.964E+00
195	3.386E-05	3.287E+00
196	2.942E-05	2.850E+00
197	2.508E-05	2.398E+00
198	1.478E-04	1.397E+01
199	1.449E-04	1.362E+01
200	1.196E-04	1.137E+01
201	6.651E-05	6.457E+00
202	4.531E-05	4.399E+00
203	3.763E-05	3.663E+00
204	3.106E-05	2.966E+00
205	2.532E-05	2.409E+00
206	2.447E-05	2.323E+00
207	2.283E-05	2.211E+00
208	2.225E-06	2.155E-01
209	2.561E-06	2.473E-01
210	3.015E-06	2.908E-01
211	3.572E-06	3.435E-01
212	4.309E-06	4.132E-01
213	5.410E-06	5.177E-01
214	6.948E-06	6.627E-01
215	8.995E-06	8.562E-01
216	1.075E-05	1.023E+00
217	1.244E-05	1.182E+00
218	1.334E-05	1.266E+00
219	1.378E-05	1.308E+00
220	1.290E-05	1.227E+00
221	1.188E-05	1.128E+00
222	1.106E-05	1.047E+00
223	1.098E-05	1.040E+00
224	1.091E-05	1.037E+00
225	1.061E-05	1.013E+00
226	1.003E-05	9.600E-01
227	2.169E-06	2.114E-01
228	2.580E-06	2.502E-01
229	3.053E-06	2.950E-01
230	3.663E-06	3.530E-01
231	4.457E-06	4.281E-01
232	5.583E-06	5.343E-01
233	7.325E-06	6.990E-01
234	9.767E-06	9.297E-01
235	1.235E-05	1.175E+00
236	1.477E-05	1.403E+00
237	1.624E-05	1.541E+00
238	1.653E-05	1.569E+00
239	1.534E-05	1.457E+00

240	1.417E-05	1.343E+00
241	1.367E-05	1.293E+00
242	1.355E-05	1.285E+00
243	1.292E-05	1.232E+00
244	1.200E-05	1.149E+00
245	1.072E-05	1.027E+00
246	1.992E-06	1.943E-01
247	2.458E-06	2.400E-01
248	3.015E-06	2.927E-01
249	3.710E-06	3.582E-01
250	4.594E-06	4.422E-01
251	5.820E-06	5.579E-01
252	7.688E-06	7.339E-01
253	1.068E-05	1.016E+00
254	1.435E-05	1.363E+00
255	1.798E-05	1.706E+00
256	2.032E-05	1.927E+00
257	2.035E-05	1.931E+00
258	1.911E-05	1.813E+00
259	1.790E-05	1.693E+00
260	1.753E-05	1.659E+00
261	1.639E-05	1.560E+00
262	1.476E-05	1.413E+00
263	1.308E-05	1.252E+00
264	1.107E-05	1.059E+00
265	2.002E-06	1.961E-01
266	2.333E-06	2.275E-01
267	2.864E-06	2.793E-01
268	3.594E-06	3.490E-01
269	4.628E-06	4.466E-01
270	6.012E-06	5.770E-01
271	8.146E-06	7.786E-01
272	1.160E-05	1.103E+00
273	1.700E-05	1.614E+00
274	2.287E-05	2.189E+00
275	2.658E-05	2.525E+00
276	2.652E-05	2.514E+00
277	2.516E-05	2.381E+00
278	2.370E-05	2.241E+00
279	2.226E-05	2.111E+00
280	1.917E-05	1.832E+00
281	1.633E-05	1.563E+00
282	1.363E-05	1.302E+00
283	1.088E-05	1.038E+00
284	2.045E-06	2.005E-01
285	2.387E-06	2.342E-01
286	2.846E-06	2.775E-01
287	3.538E-06	3.436E-01
288	4.503E-06	4.361E-01
289	6.033E-06	5.810E-01
290	8.459E-06	8.099E-01
291	1.272E-05	1.210E+00
292	2.145E-05	2.091E+00
293	3.025E-05	2.864E+00
294	1.737E-05	1.658E+00
295	1.339E-05	1.277E+00
296	1.001E-05	9.542E-01
297	1.847E-06	1.817E-01
298	2.237E-06	2.202E-01
299	2.733E-06	2.692E-01
300	3.354E-06	3.280E-01
301	4.355E-06	4.227E-01
302	5.968E-06	5.753E-01
303	8.675E-06	8.314E-01
304	1.372E-05	1.307E+00
305	2.515E-05	2.383E+00
306	1.753E-05	1.667E+00
307	1.253E-05	1.191E+00
308	9.278E-06	8.818E-01
309	1.504E-06	1.504E-01
310	1.875E-06	1.858E-01
311	2.375E-06	2.341E-01
312	3.050E-06	2.994E-01
313	3.965E-06	3.877E-01
314	5.504E-06	5.340E-01
315	8.175E-06	7.879E-01
316	1.370E-05	1.309E+00
317	3.007E-05	2.840E+00
318	1.606E-05	1.526E+00
319	1.095E-05	1.041E+00
320	8.171E-06	7.772E-01
321	1.296E-06	1.307E-01
322	1.554E-06	1.574E-01
323	1.877E-06	1.881E-01
324	2.387E-06	2.362E-01
325	3.246E-06	3.189E-01
326	4.598E-06	4.501E-01
327	6.931E-06	6.723E-01
328	1.211E-05	1.165E+00
329	3.014E-05	2.857E+00
330	1.378E-05	1.307E+00
331	1.001E-05	9.514E-01
332	7.904E-06	7.519E-01
333	1.210E-06	1.189E-01
334	1.403E-06	1.379E-01
335	1.666E-06	1.643E-01
336	2.049E-06	2.028E-01

337	2.623E-06	2.607E-01
338	3.522E-06	3.485E-01
339	5.465E-06	5.365E-01
340	9.874E-06	9.592E-01
341	3.760E-05	3.549E+00
342	1.817E-05	1.723E+00
343	1.223E-05	1.162E+00
344	9.120E-06	8.675E-01
345	7.096E-06	6.754E-01
346	1.089E-06	1.106E-01
347	1.227E-06	1.224E-01
348	1.441E-06	1.425E-01
349	1.744E-06	1.711E-01
350	2.204E-06	2.151E-01
351	2.947E-06	2.870E-01
352	4.389E-06	4.279E-01
353	7.349E-06	7.194E-01
354	2.616E-05	2.464E+00
355	1.451E-05	1.375E+00
356	9.934E-06	9.437E-01
357	7.525E-06	7.158E-01
358	6.089E-06	5.794E-01
359	9.658E-07	9.814E-02
360	1.124E-06	1.138E-01
361	1.291E-06	1.274E-01
362	1.564E-06	1.530E-01
363	1.955E-06	1.901E-01
364	2.548E-06	2.461E-01
365	3.448E-06	3.324E-01
366	5.436E-06	5.231E-01
367	1.223E-05	1.173E+00
368	4.146E-05	3.984E+00
369	3.269E-05	3.090E+00
370	1.917E-05	1.813E+00
371	1.213E-05	1.149E+00
372	8.485E-06	8.055E-01
373	6.400E-06	6.083E-01
374	5.164E-06	4.913E-01
375	9.322E-07	9.410E-02
376	1.086E-06	1.094E-01
377	1.284E-06	1.285E-01
378	1.502E-06	1.462E-01
379	1.890E-06	1.829E-01
380	2.409E-06	2.333E-01
381	3.237E-06	3.133E-01
382	4.717E-06	4.538E-01
383	9.203E-06	8.818E-01
384	1.837E-05	1.773E+00
385	2.317E-05	2.241E+00
386	2.554E-05	2.463E+00
387	2.436E-05	2.333E+00
388	2.035E-05	1.937E+00
389	1.509E-05	1.432E+00
390	1.068E-05	1.014E+00
391	7.921E-06	7.519E-01
392	6.051E-06	5.747E-01
393	4.866E-06	4.628E-01
394	9.373E-07	9.374E-02
395	1.130E-06	1.126E-01
396	1.369E-06	1.371E-01
397	1.588E-06	1.567E-01
398	1.819E-06	1.782E-01
399	2.152E-06	2.095E-01
400	2.775E-06	2.676E-01
401	4.140E-06	3.970E-01
402	7.369E-06	7.070E-01
403	1.192E-05	1.150E+00
404	1.551E-05	1.497E+00
405	1.722E-05	1.665E+00
406	1.686E-05	1.617E+00
407	1.473E-05	1.407E+00
408	1.186E-05	1.128E+00
409	9.278E-06	8.830E-01
410	7.370E-06	7.014E-01
411	5.905E-06	5.613E-01
412	4.705E-06	4.473E-01
413	1.582E-06	1.560E-01
414	1.382E-06	1.355E-01
415	1.297E-06	1.267E-01
416	1.887E-06	1.831E-01
417	1.737E-06	1.680E-01
418	1.798E-06	1.741E-01
419	2.476E-06	2.379E-01
420	2.530E-06	2.442E-01
421	2.372E-06	2.311E-01
422	3.813E-06	3.669E-01
423	3.494E-06	3.371E-01
424	3.275E-06	3.169E-01
425	6.156E-06	5.921E-01
426	5.359E-06	5.166E-01
427	4.809E-06	4.642E-01
428	9.123E-06	8.797E-01
429	7.477E-06	7.208E-01
430	6.299E-06	6.076E-01
431	1.140E-05	1.099E+00
432	8.796E-06	8.488E-01
433	7.122E-06	6.873E-01

434	1.251E-05	1.207E+00
435	9.642E-06	9.282E-01
436	7.706E-06	7.408E-01
437	1.261E-05	1.213E+00
438	9.778E-06	9.412E-01
439	7.839E-06	7.531E-01
440	1.137E-05	1.089E+00
441	9.190E-06	8.845E-01
442	7.596E-06	7.314E-01
443	9.624E-06	9.236E-01
444	8.080E-06	7.808E-01
445	6.823E-06	6.553E-01
446	7.972E-06	7.606E-01
447	6.807E-06	6.488E-01
448	5.907E-06	5.645E-01
449	6.572E-06	6.262E-01
450	5.759E-06	5.490E-01
451	5.108E-06	4.873E-01

ABOVE CONCENTRATIONS DO NOT INCLUDE THE FOLLOWING BACKGROUND CONCENTRATIONS:

0.000E+00 0.000E+00

**** RECEPTOR TOTAL CANCER RISK AND EXCESS BURDEN ***

RECEPTOR	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM	POPULATION	BURDEN
1	3.229E-07	1.939E-08	9.053E-07	0.000E+00	3.745E-07	0.000E+00	0.000E+00	1.622E-06	0	0.000E+00
2	4.865E-07	2.910E-08	1.359E-06	0.000E+00	5.624E-07	0.000E+00	0.000E+00	2.437E-06	0	0.000E+00
3	4.831E-07	2.888E-08	1.348E-06	0.000E+00	5.581E-07	0.000E+00	0.000E+00	2.418E-06	0	0.000E+00
4	6.260E-07	3.751E-08	1.751E-06	0.000E+00	7.248E-07	0.000E+00	0.000E+00	3.140E-06	0	0.000E+00
5	6.318E-07	3.787E-08	1.768E-06	0.000E+00	7.317E-07	0.000E+00	0.000E+00	3.169E-06	0	0.000E+00
6	5.738E-07	3.444E-08	1.608E-06	0.000E+00	6.653E-07	0.000E+00	0.000E+00	2.881E-06	0	0.000E+00
7	5.081E-07	3.037E-08	1.418E-06	0.000E+00	5.870E-07	0.000E+00	0.000E+00	2.544E-06	0	0.000E+00
8	5.114E-07	3.072E-08	1.434E-06	0.000E+00	5.933E-07	0.000E+00	0.000E+00	2.570E-06	0	0.000E+00
9	5.315E-07	3.201E-08	1.495E-06	0.000E+00	6.181E-07	0.000E+00	0.000E+00	2.676E-06	0	0.000E+00
10	6.717E-07	4.005E-08	1.870E-06	0.000E+00	7.740E-07	0.000E+00	0.000E+00	3.356E-06	0	0.000E+00
11	2.747E-07	1.651E-08	7.707E-07	0.000E+00	3.189E-07	0.000E+00	0.000E+00	1.381E-06	0	0.000E+00
12	1.192E-06	7.211E-08	3.367E-06	0.000E+00	1.392E-06	0.000E+00	0.000E+00	6.023E-06	0	0.000E+00
13	5.164E-07	3.161E-08	1.476E-06	0.000E+00	6.096E-07	0.000E+00	0.000E+00	2.634E-06	0	0.000E+00
14	5.208E-07	3.187E-08	1.488E-06	0.000E+00	6.146E-07	0.000E+00	0.000E+00	2.656E-06	0	0.000E+00
15	5.075E-07	3.102E-08	1.449E-06	0.000E+00	5.983E-07	0.000E+00	0.000E+00	2.586E-06	0	0.000E+00
16	5.769E-07	3.527E-08	1.647E-06	0.000E+00	6.802E-07	0.000E+00	0.000E+00	2.940E-06	0	0.000E+00
17	3.037E-07	1.830E-08	8.543E-07	0.000E+00	3.534E-07	0.000E+00	0.000E+00	1.530E-06	0	0.000E+00
18	4.579E-07	2.776E-08	1.296E-06	0.000E+00	5.358E-07	0.000E+00	0.000E+00	2.318E-06	0	0.000E+00
19	4.556E-07	2.766E-08	1.292E-06	0.000E+00	5.337E-07	0.000E+00	0.000E+00	2.309E-06	0	0.000E+00
20	6.383E-07	3.899E-08	1.821E-06	0.000E+00	7.523E-07	0.000E+00	0.000E+00	3.250E-06	0	0.000E+00
21	4.698E-07	2.820E-08	1.317E-06	0.000E+00	5.441E-07	0.000E+00	0.000E+00	2.359E-06	0	0.000E+00
22	4.392E-07	2.638E-08	1.232E-06	0.000E+00	5.087E-07	0.000E+00	0.000E+00	2.207E-06	0	0.000E+00
23	4.383E-07	2.633E-08	1.230E-06	0.000E+00	5.077E-07	0.000E+00	0.000E+00	2.202E-06	0	0.000E+00
24	4.351E-07	2.619E-08	1.223E-06	0.000E+00	5.050E-07	0.000E+00	0.000E+00	2.189E-06	0	0.000E+00
25	4.377E-07	2.639E-08	1.232E-06	0.000E+00	5.088E-07	0.000E+00	0.000E+00	2.205E-06	0	0.000E+00
26	4.602E-07	2.784E-08	1.300E-06	0.000E+00	5.373E-07	0.000E+00	0.000E+00	2.325E-06	0	0.000E+00
27	4.707E-07	2.834E-08	1.323E-06	0.000E+00	5.472E-07	0.000E+00	0.000E+00	2.370E-06	0	0.000E+00
28	5.025E-07	3.021E-08	1.411E-06	0.000E+00	5.834E-07	0.000E+00	0.000E+00	2.527E-06	0	0.000E+00
29	6.367E-07	3.858E-08	1.801E-06	0.000E+00	7.446E-07	0.000E+00	0.000E+00	3.221E-06	0	0.000E+00
30	6.745E-07	4.103E-08	1.916E-06	0.000E+00	7.917E-07	0.000E+00	0.000E+00	3.423E-06	0	0.000E+00
31	7.057E-07	4.307E-08	2.012E-06	0.000E+00	8.310E-07	0.000E+00	0.000E+00	3.591E-06	0	0.000E+00
32	7.083E-07	4.328E-08	2.022E-06	0.000E+00	8.350E-07	0.000E+00	0.000E+00	3.608E-06	0	0.000E+00
33	7.844E-07	4.813E-08	2.248E-06	0.000E+00	9.282E-07	0.000E+00	0.000E+00	4.009E-06	0	0.000E+00
34	8.671E-07	5.322E-08	2.485E-06	0.000E+00	1.026E-06	0.000E+00	0.000E+00	4.432E-06	0	0.000E+00
35	9.242E-07	5.683E-08	2.654E-06	0.000E+00	1.096E-06	0.000E+00	0.000E+00	4.731E-06	0	0.000E+00
36	9.629E-07	5.935E-08	2.772E-06	0.000E+00	1.144E-06	0.000E+00	0.000E+00	4.939E-06	0	0.000E+00
37	9.650E-07	5.952E-08	2.780E-06	0.000E+00	1.148E-06	0.000E+00	0.000E+00	4.952E-06	0	0.000E+00
38	9.374E-07	5.761E-08	2.691E-06	0.000E+00	1.111E-06	0.000E+00	0.000E+00	4.797E-06	0	0.000E+00
39	1.144E-06	7.045E-08	3.290E-06	0.000E+00	1.359E-06	0.000E+00	0.000E+00	5.864E-06	0	0.000E+00
40	1.450E-06	8.948E-08	4.179E-06	0.000E+00	1.725E-06	0.000E+00	0.000E+00	7.444E-06	0	0.000E+00
41	1.991E-06	1.224E-07	5.715E-06	0.000E+00	2.358E-06	0.000E+00	0.000E+00	1.019E-05	0	0.000E+00
42	3.045E-06	1.854E-07	8.662E-06	0.000E+00	3.574E-06	0.000E+00	0.000E+00	1.547E-05	0	0.000E+00
43	2.587E-06	1.553E-07	7.251E-06	0.000E+00	2.996E-06	0.000E+00	0.000E+00	1.299E-05	0	0.000E+00
44	2.352E-06	1.385E-07	6.465E-06	0.000E+00	2.679E-06	0.000E+00	0.000E+00	1.163E-05	0	0.000E+00
45	2.268E-06	1.317E-07	6.149E-06	0.000E+00	2.552E-06	0.000E+00	0.000E+00	1.110E-05	0	0.000E+00
46	1.440E-06	8.425E-08	3.932E-06	0.000E+00	1.631E-06	0.000E+00	0.000E+00	7.087E-06	0	0.000E+00
47	2.130E-06	1.227E-07	5.726E-06	0.000E+00	2.374E-06	0.000E+00	0.000E+00	1.035E-05	0	0.000E+00
48	2.763E-06	1.590E-07	7.419E-06	0.000E+00	3.081E-06	0.000E+00	0.000E+00	1.342E-05	0	0.000E+00
49	3.267E-06	1.876E-07	8.755E-06	0.000E+00	3.636E-06	0.000E+00	0.000E+00	1.584E-05	0	0.000E+00
50	3.498E-06	2.010E-07	9.380E-06	0.000E+00	3.895E-06	0.000E+00	0.000E+00	1.697E-05	0	0.000E+00
51	1.856E-06	1.078E-07	5.032E-06	0.000E+00	2.086E-06	0.000E+00	0.000E+00	9.082E-06	0	0.000E+00
52	1.231E-06	7.222E-08	3.371E-06	0.000E+00	1.397E-06	0.000E+00	0.000E+00	6.072E-06	0	0.000E+00
53	8.921E-07	5.276E-08	2.463E-06	0.000E+00	1.020E-06	0.000E+00	0.000E+00	4.428E-06	0	0.000E+00
54	7.306E-07	4.297E-08	2.007E-06	0.000E+00	8.296E-07	0.000E+00	0.000E+00	3.610E-06	0	0.000E+00
55	7.812E-07	4.612E-08	2.153E-06	0.000E+00	8.911E-07	0.000E+00	0.000E+00	3.872E-06	0	0.000E+00
56	8.501E-07	5.005E-08	2.337E-06	0.000E+00	9.669E-07	0.000E+00	0.000E+00	4.204E-06	0	0.000E+00
57	8.890E-07	5.280E-08	2.465E-06	0.000E+00	1.021E-06	0.000E+00	0.000E+00	4.427E-06	0	0.000E+00

58	1.115E-06	6.614E-08	3.088E-06	0.000E+00	1.279E-06	0.000E+00	0.000E+00	5.548E-06	0	0.000E+00
59	1.403E-06	8.266E-08	3.860E-06	0.000E+00	1.596E-06	0.000E+00	0.000E+00	6.942E-06	0	0.000E+00
60	1.676E-06	9.915E-08	4.630E-06	0.000E+00	1.914E-06	0.000E+00	0.000E+00	8.319E-06	0	0.000E+00
61	2.005E-06	1.191E-07	5.563E-06	0.000E+00	2.300E-06	0.000E+00	0.000E+00	9.987E-06	0	0.000E+00
62	2.355E-06	1.403E-07	6.551E-06	0.000E+00	2.708E-06	0.000E+00	0.000E+00	1.175E-05	0	0.000E+00
63	2.745E-06	1.637E-07	7.647E-06	0.000E+00	3.160E-06	0.000E+00	0.000E+00	1.371E-05	0	0.000E+00
64	2.531E-06	1.507E-07	7.038E-06	0.000E+00	2.908E-06	0.000E+00	0.000E+00	1.263E-05	0	0.000E+00
65	2.963E-06	1.765E-07	8.244E-06	0.000E+00	3.408E-06	0.000E+00	0.000E+00	1.479E-05	0	0.000E+00
66	3.684E-06	2.176E-07	1.016E-05	0.000E+00	4.204E-06	0.000E+00	0.000E+00	1.826E-05	0	0.000E+00
67	4.995E-06	2.918E-07	1.362E-05	0.000E+00	5.644E-06	0.000E+00	0.000E+00	2.455E-05	0	0.000E+00
68	5.341E-06	3.113E-07	1.453E-05	0.000E+00	6.025E-06	0.000E+00	0.000E+00	2.621E-05	0	0.000E+00
69	5.348E-06	3.111E-07	1.452E-05	0.000E+00	6.019E-06	0.000E+00	0.000E+00	2.620E-05	0	0.000E+00
70	5.230E-06	3.033E-07	1.416E-05	0.000E+00	5.869E-06	0.000E+00	0.000E+00	2.556E-05	0	0.000E+00
71	3.396E-06	1.987E-07	9.278E-06	0.000E+00	3.843E-06	0.000E+00	0.000E+00	1.672E-05	0	0.000E+00
72	2.490E-06	1.463E-07	6.829E-06	0.000E+00	2.826E-06	0.000E+00	0.000E+00	1.229E-05	0	0.000E+00
73	1.879E-06	1.113E-07	5.198E-06	0.000E+00	2.152E-06	0.000E+00	0.000E+00	9.340E-06	0	0.000E+00
74	1.576E-06	9.301E-08	4.343E-06	0.000E+00	1.796E-06	0.000E+00	0.000E+00	7.808E-06	0	0.000E+00
75	1.444E-06	8.539E-08	3.987E-06	0.000E+00	1.650E-06	0.000E+00	0.000E+00	7.166E-06	0	0.000E+00
76	1.291E-06	7.657E-08	3.575E-06	0.000E+00	1.480E-06	0.000E+00	0.000E+00	6.422E-06	0	0.000E+00
77	1.114E-06	6.604E-08	3.083E-06	0.000E+00	1.277E-06	0.000E+00	0.000E+00	5.540E-06	0	0.000E+00
78	9.638E-07	5.668E-08	2.647E-06	0.000E+00	1.095E-06	0.000E+00	0.000E+00	4.762E-06	0	0.000E+00
79	1.117E-06	6.518E-08	3.043E-06	0.000E+00	1.258E-06	0.000E+00	0.000E+00	5.484E-06	0	0.000E+00
80	1.219E-06	7.169E-08	3.347E-06	0.000E+00	1.387E-06	0.000E+00	0.000E+00	6.024E-06	0	0.000E+00
81	1.425E-06	8.355E-08	3.900E-06	0.000E+00	1.617E-06	0.000E+00	0.000E+00	7.025E-06	0	0.000E+00
82	1.671E-06	9.770E-08	4.560E-06	0.000E+00	1.891E-06	0.000E+00	0.000E+00	8.221E-06	0	0.000E+00
83	1.839E-06	1.074E-07	5.012E-06	0.000E+00	2.079E-06	0.000E+00	0.000E+00	9.037E-06	0	0.000E+00
84	1.994E-06	1.163E-07	5.429E-06	0.000E+00	2.252E-06	0.000E+00	0.000E+00	9.792E-06	0	0.000E+00
85	2.120E-06	1.235E-07	5.765E-06	0.000E+00	2.391E-06	0.000E+00	0.000E+00	1.040E-05	0	0.000E+00
86	2.056E-06	1.200E-07	5.600E-06	0.000E+00	2.323E-06	0.000E+00	0.000E+00	1.010E-05	0	0.000E+00
87	1.088E-06	6.460E-08	3.016E-06	0.000E+00	1.249E-06	0.000E+00	0.000E+00	5.417E-06	0	0.000E+00
88	7.252E-07	4.335E-08	2.024E-06	0.000E+00	8.372E-07	0.000E+00	0.000E+00	3.630E-06	0	0.000E+00
89	5.282E-07	3.166E-08	1.479E-06	0.000E+00	6.113E-07	0.000E+00	0.000E+00	2.650E-06	0	0.000E+00
90	4.966E-07	2.978E-08	1.391E-06	0.000E+00	5.748E-07	0.000E+00	0.000E+00	2.492E-06	0	0.000E+00
91	2.374E-06	1.406E-07	6.564E-06	0.000E+00	2.719E-06	0.000E+00	0.000E+00	1.180E-05	0	0.000E+00
92	2.299E-06	1.363E-07	6.363E-06	0.000E+00	2.636E-06	0.000E+00	0.000E+00	1.143E-05	0	0.000E+00
93	2.212E-06	1.313E-07	6.132E-06	0.000E+00	2.540E-06	0.000E+00	0.000E+00	1.102E-05	0	0.000E+00
94	2.122E-06	1.262E-07	5.890E-06	0.000E+00	2.439E-06	0.000E+00	0.000E+00	1.058E-05	0	0.000E+00
95	2.034E-06	1.211E-07	5.654E-06	0.000E+00	2.341E-06	0.000E+00	0.000E+00	1.015E-05	0	0.000E+00
96	1.953E-06	1.164E-07	5.437E-06	0.000E+00	2.251E-06	0.000E+00	0.000E+00	9.757E-06	0	0.000E+00
97	1.878E-06	1.121E-07	5.234E-06	0.000E+00	2.166E-06	0.000E+00	0.000E+00	9.390E-06	0	0.000E+00
98	1.766E-06	1.057E-07	4.935E-06	0.000E+00	2.042E-06	0.000E+00	0.000E+00	8.849E-06	0	0.000E+00
99	1.678E-06	1.003E-07	4.684E-06	0.000E+00	1.938E-06	0.000E+00	0.000E+00	8.400E-06	0	0.000E+00
100	1.572E-06	9.411E-08	4.394E-06	0.000E+00	1.817E-06	0.000E+00	0.000E+00	7.878E-06	0	0.000E+00
101	1.491E-06	8.903E-08	4.157E-06	0.000E+00	1.718E-06	0.000E+00	0.000E+00	7.455E-06	0	0.000E+00
102	1.425E-06	8.480E-08	3.960E-06	0.000E+00	1.636E-06	0.000E+00	0.000E+00	7.106E-06	0	0.000E+00
103	2.712E-06	1.604E-07	7.489E-06	0.000E+00	3.103E-06	0.000E+00	0.000E+00	1.346E-05	0	0.000E+00
104	2.605E-06	1.543E-07	7.203E-06	0.000E+00	2.984E-06	0.000E+00	0.000E+00	1.295E-05	0	0.000E+00
105	2.478E-06	1.471E-07	6.865E-06	0.000E+00	2.843E-06	0.000E+00	0.000E+00	1.233E-05	0	0.000E+00
106	2.354E-06	1.400E-07	6.535E-06	0.000E+00	2.706E-06	0.000E+00	0.000E+00	1.173E-05	0	0.000E+00
107	2.241E-06	1.335E-07	6.231E-06	0.000E+00	2.579E-06	0.000E+00	0.000E+00	1.118E-05	0	0.000E+00
108	2.131E-06	1.271E-07	5.935E-06	0.000E+00	2.456E-06	0.000E+00	0.000E+00	1.065E-05	0	0.000E+00
109	2.019E-06	1.206E-07	5.631E-06	0.000E+00	2.330E-06	0.000E+00	0.000E+00	1.010E-05	0	0.000E+00
110	1.894E-06	1.132E-07	5.284E-06	0.000E+00	2.185E-06	0.000E+00	0.000E+00	9.476E-06	0	0.000E+00
111	1.768E-06	1.057E-07	4.935E-06	0.000E+00	2.041E-06	0.000E+00	0.000E+00	8.849E-06	0	0.000E+00
112	1.656E-06	9.893E-08	4.620E-06	0.000E+00	1.910E-06	0.000E+00	0.000E+00	8.284E-06	0	0.000E+00
113	1.551E-06	9.262E-08	4.325E-06	0.000E+00	1.788E-06	0.000E+00	0.000E+00	7.756E-06	0	0.000E+00
114	1.472E-06	8.772E-08	4.097E-06	0.000E+00	1.692E-06	0.000E+00	0.000E+00	7.349E-06	0	0.000E+00
115	3.165E-06	1.869E-07	8.723E-06	0.000E+00	3.614E-06	0.000E+00	0.000E+00	1.569E-05	0	0.000E+00
116	3.002E-06	1.776E-07	8.291E-06	0.000E+00	3.435E-06	0.000E+00	0.000E+00	1.490E-05	0	0.000E+00
117	2.807E-06	1.664E-07	7.771E-06	0.000E+00	3.218E-06	0.000E+00	0.000E+00	1.396E-05	0	0.000E+00
118	2.634E-06	1.565E-07	7.307E-06	0.000E+00	3.025E-06	0.000E+00	0.000E+00	1.312E-05	0	0.000E+00
119	2.494E-06	1.482E-07	6.919E-06	0.000E+00	2.863E-06	0.000E+00	0.000E+00	1.242E-05	0	0.000E+00
120	2.317E-06	1.382E-07	6.452E-06	0.000E+00	2.669E-06	0.000E+00	0.000E+00	1.158E-05	0	0.000E+00
121	2.153E-06	1.287E-07	6.009E-06	0.000E+00	2.486E-06	0.000E+00	0.000E+00	1.078E-05	0	0.000E+00
122	2.008E-06	1.199E-07	5.599E-06	0.000E+00	2.315E-06	0.000E+00	0.000E+00	1.004E-05	0	0.000E+00
123	1.867E-06	1.115E-07	5.205E-06	0.000E+00	2.151E-06	0.000E+00	0.000E+00	9.334E-06	0	0.000E+00
124	1.774E-06	1.054E-07	4.923E-06	0.000E+00	2.033E-06	0.000E+00	0.000E+00	8.837E-06	0	0.000E+00
125	1.643E-06	9.789E-08	4.572E-06	0.000E+00	1.888E-06	0.000E+00	0.000E+00	8.201E-06	0	0.000E+00
126	1.525E-06	9.098E-08	4.249E-06	0.000E+00	1.755E-06	0.000E+00	0.000E+00	7.620E-06	0	0.000E+00
127	3.803E-06	2.239E-07	1.045E-05	0.000E+00	4.332E-06	0.000E+00	0.000E+00	1.881E-05	0	0.000E+00
128	3.551E-06	2.096E-07	9.783E-06	0.000E+00	4.053E-06	0.000E+00	0.000E+00	1.760E-05	0	0.000E+00
129	3.232E-06	1.913E-07	8.931E-06	0.000E+00	3.699E-06	0.000E+00	0.000E+00	1.605E-05	0	0.000E+00
130	3.013E-06	1.783E-07	8.325E-06	0.000E+00	3.444E-06	0.000E+00	0.000E+00	1.496E-05	0	0.000E+00
131	2.757E-06	1.637E-07	7.643E-06	0.000E+00	3.160E-06	0.000E+00	0.000E+00	1.372E-05	0	0.000E+00
132	2.529E-06	1.503E-07	7.021E-06	0.000E+00	2.902E-06	0.000E+00	0.000E+00	1.260E-05	0	0.000E+00
133	2.288E-06	1.367E-07	6.385E-06	0.000E+00	2.640E-06	0.000E+00	0.000E+00	1.145E-05	0	0.000E+00
134	2.145E-06	1.278E-07	5.966E-06	0.000E+00	2.465E-06	0.000E+00	0.000E+00	1.070E-05	0	0.000E+00
135	1.994E-06	1.187E-07	5.542E-06	0.000E+00	2.290E-06	0.000E+00	0.000E+00	9.944E-06	0	0.000E+00
136	1.848E-06	1.102E-07	5.146E-06	0.000E+00	2.126E-06	0.000E+00	0.000E+00	9.230E-06	0	0.000E+00
137	1.715E-06	1.022E-07	4.775E-06	0.000E+00	1.972E-06	0.000E+00	0.000E+00	8.564E-06	0	0.000E+00
138	1.591E-06	9.493E-08	4.433E-06	0.000E+00	1.831E-06	0.000E+00	0.000E+00	7.951E-06	0	0.000E+00
139	4.851E-06	2.835E-07	1.324E-05	0.000E+00	5.486E-06	0.000E+00	0.000E+00	2.386E-05	0	0.000E+00
140	4.466E-06	2.617E-07	1.222E-05	0.000E+00	5.061E-06	0.000E+00	0.000E+00	2.201E-05	0	0.000E+00
141	3.846E-06	2.265E-07	1.057E-05	0.000E+00	4.378E-06	0.000E+00	0.000E+00	1.902E-05	0	0.000E+00
142	3.319E-06	1.968E-07	9.187E-06	0.000E+00	3.800E-06	0.000E+00	0.000E+00	1.650E-05	0	0.000E+00
143	2.956E-06	1.760E-07	8.218E-06	0.000E+00	3.398E-06	0.000E+00	0.000E+00	1.475E-05	0	0.000E+00
144	2.678E-06	1.596E-07	7.454E-06	0.000E+00	3.081E-06	0.000E+00	0.000E+00	1.337E-05	0	0.000E+00
145	2.447E-06	1.459E-07	6.813E-06	0.000E+00	2.815E-06	0.000E+00	0.000E+00	1.222E-05	0	0.000E+00
146	2.260E-06	1.347E-07	6.289E-06	0.000E+00	2.598E-06	0.000E+00	0.000E+00	1.128E-05	0	0.000E+00
147	2.090E-06	1.246E-07	5.817E-06	0.000E+00	2.403E-06	0.000E+00	0.000E+00	1.044E-05	0	0.000E+00
148	1.935E-06	1.153E-07	5.386E-06	0.000E+00	2.226E-06	0.000E+00	0.000E+00	9.662E-06	0	0.000E+00
149	1.795E-06	1.071E-07	5.001E-06	0.000E+00	2.066E-06	0.000E+00	0.000E+00	8.969E-06	0	0.000E+00
150	1.663E-06	9.922E-08	4.634E-06	0.000E+00	1.914E-06	0.000E+00	0.000E+00	8.311E-06	0	0.000E+00
151	2.583E-06	1.540E-07	7.191E-06	0.000E+00	2.971E-06	0.000E+00	0.000E+00	1.290E-05	0	0.000E+00
152	2.385E-06	1.422E-07	6.641E-06	0.000E+00	2.744E-06	0.000E+00	0.000E+00	1.191E-05	0	0.000E+00
153	2.210E-06	1.318E-07	6.154E-06	0.000E+00	2.543E-06	0.000E+00	0.000E+00	1.104E-05	0	0.000E+00
154	2.047E-06	1.216E-07	5.679E-06	0.000E+00	2.347E-06	0.000E+00	0.000E+00	1.019E-05	0	0.000E+00

155	1.906E-06	1.136E-07	5.307E-06	0.000E+00	2.193E-06	0.000E+00	0.000E+00	9.519E-06	0	0.000E+00
156	1.761E-06	1.048E-07	4.892E-06	0.000E+00	2.022E-06	0.000E+00	0.000E+00	8.779E-06	0	0.000E+00
157	1.351E-06	7.971E-08	3.723E-06	0.000E+00	1.538E-06	0.000E+00	0.000E+00	6.692E-06	0	0.000E+00
158	1.381E-06	8.168E-08	3.814E-06	0.000E+00	1.577E-06	0.000E+00	0.000E+00	6.853E-06	0	0.000E+00
159	1.329E-06	7.927E-08	3.701E-06	0.000E+00	1.532E-06	0.000E+00	0.000E+00	6.642E-06	0	0.000E+00
160	1.292E-06	7.688E-08	3.589E-06	0.000E+00	1.486E-06	0.000E+00	0.000E+00	6.444E-06	0	0.000E+00
161	1.228E-06	7.302E-08	3.409E-06	0.000E+00	1.412E-06	0.000E+00	0.000E+00	6.121E-06	0	0.000E+00
162	1.168E-06	6.957E-08	3.248E-06	0.000E+00	1.345E-06	0.000E+00	0.000E+00	5.831E-06	0	0.000E+00
163	1.123E-06	6.697E-08	3.127E-06	0.000E+00	1.294E-06	0.000E+00	0.000E+00	5.611E-06	0	0.000E+00
164	1.046E-06	6.261E-08	2.923E-06	0.000E+00	1.210E-06	0.000E+00	0.000E+00	5.242E-06	0	0.000E+00
165	9.431E-07	5.669E-08	2.647E-06	0.000E+00	1.095E-06	0.000E+00	0.000E+00	4.741E-06	0	0.000E+00
166	8.325E-07	5.028E-08	2.348E-06	0.000E+00	9.707E-07	0.000E+00	0.000E+00	4.201E-06	0	0.000E+00
167	7.440E-07	4.501E-08	2.102E-06	0.000E+00	8.689E-07	0.000E+00	0.000E+00	3.760E-06	0	0.000E+00
168	1.664E-06	9.908E-08	4.626E-06	0.000E+00	1.915E-06	0.000E+00	0.000E+00	8.304E-06	0	0.000E+00
169	1.664E-06	9.900E-08	4.622E-06	0.000E+00	1.914E-06	0.000E+00	0.000E+00	8.299E-06	0	0.000E+00
170	1.592E-06	9.451E-08	4.412E-06	0.000E+00	1.828E-06	0.000E+00	0.000E+00	7.926E-06	0	0.000E+00
171	1.494E-06	8.887E-08	4.149E-06	0.000E+00	1.718E-06	0.000E+00	0.000E+00	7.451E-06	0	0.000E+00
172	1.405E-06	8.377E-08	3.911E-06	0.000E+00	1.619E-06	0.000E+00	0.000E+00	7.019E-06	0	0.000E+00
173	1.313E-06	7.843E-08	3.662E-06	0.000E+00	1.516E-06	0.000E+00	0.000E+00	6.568E-06	0	0.000E+00
174	1.172E-06	7.026E-08	3.281E-06	0.000E+00	1.357E-06	0.000E+00	0.000E+00	5.880E-06	0	0.000E+00
175	1.023E-06	6.148E-08	2.871E-06	0.000E+00	1.187E-06	0.000E+00	0.000E+00	5.142E-06	0	0.000E+00
176	8.831E-07	5.335E-08	2.492E-06	0.000E+00	1.030E-06	0.000E+00	0.000E+00	4.458E-06	0	0.000E+00
177	7.827E-07	4.726E-08	2.207E-06	0.000E+00	9.123E-07	0.000E+00	0.000E+00	3.949E-06	0	0.000E+00
178	2.254E-06	1.328E-07	6.202E-06	0.000E+00	2.567E-06	0.000E+00	0.000E+00	1.116E-05	0	0.000E+00
179	2.162E-06	1.281E-07	5.980E-06	0.000E+00	2.477E-06	0.000E+00	0.000E+00	1.075E-05	0	0.000E+00
180	2.025E-06	1.201E-07	5.609E-06	0.000E+00	2.323E-06	0.000E+00	0.000E+00	1.008E-05	0	0.000E+00
181	1.852E-06	1.103E-07	5.148E-06	0.000E+00	2.132E-06	0.000E+00	0.000E+00	9.242E-06	0	0.000E+00
182	1.715E-06	1.022E-07	4.771E-06	0.000E+00	1.974E-06	0.000E+00	0.000E+00	8.563E-06	0	0.000E+00
183	1.501E-06	8.982E-08	4.194E-06	0.000E+00	1.735E-06	0.000E+00	0.000E+00	7.520E-06	0	0.000E+00
184	1.331E-06	7.924E-08	3.701E-06	0.000E+00	1.528E-06	0.000E+00	0.000E+00	6.640E-06	0	0.000E+00
185	1.113E-06	6.668E-08	3.114E-06	0.000E+00	1.286E-06	0.000E+00	0.000E+00	5.580E-06	0	0.000E+00
186	9.460E-07	5.693E-08	2.659E-06	0.000E+00	1.099E-06	0.000E+00	0.000E+00	4.760E-06	0	0.000E+00
187	8.305E-07	4.991E-08	2.331E-06	0.000E+00	9.637E-07	0.000E+00	0.000E+00	4.175E-06	0	0.000E+00
188	3.163E-06	1.855E-07	8.662E-06	0.000E+00	3.586E-06	0.000E+00	0.000E+00	1.560E-05	0	0.000E+00
189	3.010E-06	1.776E-07	8.290E-06	0.000E+00	3.435E-06	0.000E+00	0.000E+00	1.491E-05	0	0.000E+00
190	2.714E-06	1.608E-07	7.508E-06	0.000E+00	3.110E-06	0.000E+00	0.000E+00	1.349E-05	0	0.000E+00
191	2.362E-06	1.406E-07	6.564E-06	0.000E+00	2.717E-06	0.000E+00	0.000E+00	1.178E-05	0	0.000E+00
192	2.016E-06	1.205E-07	5.625E-06	0.000E+00	2.327E-06	0.000E+00	0.000E+00	1.009E-05	0	0.000E+00
193	1.704E-06	1.017E-07	4.747E-06	0.000E+00	1.962E-06	0.000E+00	0.000E+00	8.514E-06	0	0.000E+00
194	1.445E-06	8.625E-08	4.028E-06	0.000E+00	1.663E-06	0.000E+00	0.000E+00	7.223E-06	0	0.000E+00
195	1.200E-06	7.177E-08	3.352E-06	0.000E+00	1.385E-06	0.000E+00	0.000E+00	6.008E-06	0	0.000E+00
196	1.041E-06	6.201E-08	2.896E-06	0.000E+00	1.197E-06	0.000E+00	0.000E+00	5.196E-06	0	0.000E+00
197	8.755E-07	5.222E-08	2.438E-06	0.000E+00	1.009E-06	0.000E+00	0.000E+00	4.375E-06	0	0.000E+00
198	5.108E-06	2.973E-07	1.388E-05	0.000E+00	5.753E-06	0.000E+00	0.000E+00	2.504E-05	0	0.000E+00
199	4.985E-06	2.914E-07	1.360E-05	0.000E+00	5.639E-06	0.000E+00	0.000E+00	2.452E-05	0	0.000E+00
200	4.152E-06	2.439E-07	1.139E-05	0.000E+00	4.716E-06	0.000E+00	0.000E+00	2.050E-05	0	0.000E+00
201	2.355E-06	1.403E-07	6.552E-06	0.000E+00	2.707E-06	0.000E+00	0.000E+00	1.175E-05	0	0.000E+00
202	1.604E-06	9.568E-08	4.468E-06	0.000E+00	1.846E-06	0.000E+00	0.000E+00	8.014E-06	0	0.000E+00
203	1.336E-06	7.925E-08	3.701E-06	0.000E+00	1.529E-06	0.000E+00	0.000E+00	6.645E-06	0	0.000E+00
204	1.083E-06	6.444E-08	3.009E-06	0.000E+00	1.245E-06	0.000E+00	0.000E+00	5.401E-06	0	0.000E+00
205	8.800E-07	5.230E-08	2.442E-06	0.000E+00	1.011E-06	0.000E+00	0.000E+00	4.385E-06	0	0.000E+00
206	8.488E-07	5.034E-08	2.350E-06	0.000E+00	9.732E-07	0.000E+00	0.000E+00	4.223E-06	0	0.000E+00
207	8.070E-07	4.740E-08	2.213E-06	0.000E+00	9.152E-07	0.000E+00	0.000E+00	3.983E-06	0	0.000E+00
208	7.866E-08	4.710E-09	2.200E-07	0.000E+00	9.088E-08	0.000E+00	0.000E+00	3.942E-07	0	0.000E+00
209	9.026E-08	5.408E-09	2.525E-07	0.000E+00	1.044E-07	0.000E+00	0.000E+00	4.526E-07	0	0.000E+00
210	1.061E-07	6.379E-09	2.979E-07	0.000E+00	1.231E-07	0.000E+00	0.000E+00	5.335E-07	0	0.000E+00
211	1.254E-07	7.536E-09	3.519E-07	0.000E+00	1.455E-07	0.000E+00	0.000E+00	6.303E-07	0	0.000E+00
212	1.508E-07	9.054E-09	4.228E-07	0.000E+00	1.748E-07	0.000E+00	0.000E+00	7.575E-07	0	0.000E+00
213	1.890E-07	1.136E-08	5.307E-07	0.000E+00	2.194E-07	0.000E+00	0.000E+00	9.505E-07	0	0.000E+00
214	2.420E-07	1.454E-08	6.789E-07	0.000E+00	2.808E-07	0.000E+00	0.000E+00	1.216E-06	0	0.000E+00
215	3.126E-07	1.878E-08	8.771E-07	0.000E+00	3.629E-07	0.000E+00	0.000E+00	1.571E-06	0	0.000E+00
216	3.735E-07	2.248E-08	1.049E-06	0.000E+00	4.341E-07	0.000E+00	0.000E+00	1.880E-06	0	0.000E+00
217	4.315E-07	2.590E-08	1.209E-06	0.000E+00	5.004E-07	0.000E+00	0.000E+00	2.167E-06	0	0.000E+00
218	4.623E-07	2.773E-08	1.295E-06	0.000E+00	5.359E-07	0.000E+00	0.000E+00	2.321E-06	0	0.000E+00
219	4.776E-07	2.867E-08	1.339E-06	0.000E+00	5.540E-07	0.000E+00	0.000E+00	2.399E-06	0	0.000E+00
220	4.479E-07	2.698E-08	1.260E-06	0.000E+00	5.212E-07	0.000E+00	0.000E+00	2.256E-06	0	0.000E+00
221	4.118E-07	2.476E-08	1.156E-06	0.000E+00	4.784E-07	0.000E+00	0.000E+00	2.071E-06	0	0.000E+00
222	3.823E-07	2.282E-08	1.065E-06	0.000E+00	4.411E-07	0.000E+00	0.000E+00	1.912E-06	0	0.000E+00
223	3.800E-07	2.266E-08	1.058E-06	0.000E+00	4.381E-07	0.000E+00	0.000E+00	1.899E-06	0	0.000E+00
224	3.788E-07	2.267E-08	1.058E-06	0.000E+00	4.380E-07	0.000E+00	0.000E+00	1.898E-06	0	0.000E+00
225	3.698E-07	2.226E-08	1.039E-06	0.000E+00	4.298E-07	0.000E+00	0.000E+00	1.861E-06	0	0.000E+00
226	3.503E-07	2.111E-08	9.858E-07	0.000E+00	4.076E-07	0.000E+00	0.000E+00	1.765E-06	0	0.000E+00
227	7.708E-08	4.633E-09	2.164E-07	0.000E+00	8.934E-08	0.000E+00	0.000E+00	3.874E-07	0	0.000E+00
228	9.132E-08	5.473E-09	2.556E-07	0.000E+00	1.056E-07	0.000E+00	0.000E+00	4.580E-07	0	0.000E+00
229	1.077E-07	6.449E-09	3.012E-07	0.000E+00	1.245E-07	0.000E+00	0.000E+00	5.398E-07	0	0.000E+00
230	1.288E-07	7.735E-09	3.612E-07	0.000E+00	1.493E-07	0.000E+00	0.000E+00	6.471E-07	0	0.000E+00
231	1.563E-07	9.385E-09	4.383E-07	0.000E+00	1.812E-07	0.000E+00	0.000E+00	7.851E-07	0	0.000E+00
232	1.951E-07	1.171E-08	5.469E-07	0.000E+00	2.262E-07	0.000E+00	0.000E+00	9.799E-07	0	0.000E+00
233	2.552E-07	1.533E-08	7.159E-07	0.000E+00	2.961E-07	0.000E+00	0.000E+00	1.283E-06	0	0.000E+00
234	3.395E-07	2.038E-08	9.516E-07	0.000E+00	3.937E-07	0.000E+00	0.000E+00	1.705E-06	0	0.000E+00
235	4.290E-07	2.577E-08	1.203E-06	0.000E+00	4.979E-07	0.000E+00	0.000E+00	2.156E-06	0	0.000E+00
236	5.123E-07	3.075E-08	1.436E-06	0.000E+00	5.941E-07	0.000E+00	0.000E+00	2.573E-06	0	0.000E+00
237	5.626E-07	3.373E-08	1.575E-06	0.000E+00	6.518E-07	0.000E+00	0.000E+00	2.823E-06	0	0.000E+00
238	5.728E-07	3.439E-08	1.606E-06	0.000E+00	6.645E-07	0.000E+00	0.000E+00	2.877E-06	0	0.000E+00
239	5.321E-07	3.203E-08	1.496E-06	0.000E+00	6.188E-07	0.000E+00	0.000E+00	2.679E-06	0	0.000E+00
240	4.904E-07	2.936E-08	1.371E-06	0.000E+00	5.674E-07	0.000E+00	0.000E+00	2.458E-06	0	0.000E+00
241	4.723E-07	2.813E-08	1.313E-06	0.000E+00	5.439E-07	0.000E+00	0.000E+00	2.358E-06	0	0.000E+00
242	4.693E-07	2.802E-08	1.308E-06	0.000E+00	5.416E-07	0.000E+00	0.000E+00	2.347E-06	0	0.000E+00
243	4.497E-07	2.703E-08	1.262E-06	0.000E+00	5.220E-07	0.000E+00	0.000E+00	2.261E-06	0	0.000E+00
244	4.193E-07	2.529E-08	1.181E-06	0.000E+00	4.883E-07	0.000E+00	0.000E+00	2.114E-06	0	0.000E+00
245	3.746E-07	2.259E-08	1.055E-06	0.000E+00	4.362E-07	0.000E+00	0.000E+00	1.888E-06	0	0.000E+00
246	7.086E-08	4.250E-09	1.985E-07	0.000E+00	8.196E-08	0.000E+00	0.000E+00	3.556E-07	0	0.000E+00
247	8.750E-08	5.256E-09	2.455E-07	0.000E+00	1.014E-07	0.000E+00	0.000E+00	4.396E-07	0	0.000E+00
248	1.068E-07	6.408E-09	2.993E-07	0.000E+00	1.236E-07	0.000E+00	0.000E+00	5.361E-07	0	0.000E+00
249	1.307E-07	7.843E-09	3.662E-07	0.000E+00	1.514E-07	0.000E+00	0.000E+00	6.562E-07	0	0.000E+00
250	1.614E-07	9.682E-09	4.521E-07	0.000E+00	1.869E-07	0.000E+00	0.000E+00	8.101E-07	0	0.000E+00
251	2.037E-07	1.223E-08	5.710E-07	0.000E+00	2.361E-07	0.000E+00	0.000E+00	1.023E-06	0	0.000E+00

252	2.679E-07	1.608E-08	7.508E-07	0.000E+00	3.106E-07	0.000E+00	0.000E+00	1.345E-06	0	0.000E+00
253	3.711E-07	2.226E-08	1.039E-06	0.000E+00	4.300E-07	0.000E+00	0.000E+00	1.863E-06	0	0.000E+00
254	4.979E-07	2.984E-08	1.393E-06	0.000E+00	5.766E-07	0.000E+00	0.000E+00	2.498E-06	0	0.000E+00
255	6.232E-07	3.737E-08	1.745E-06	0.000E+00	7.222E-07	0.000E+00	0.000E+00	3.128E-06	0	0.000E+00
256	7.038E-07	4.217E-08	1.969E-06	0.000E+00	8.149E-07	0.000E+00	0.000E+00	3.530E-06	0	0.000E+00
257	7.053E-07	4.234E-08	1.977E-06	0.000E+00	8.181E-07	0.000E+00	0.000E+00	3.542E-06	0	0.000E+00
258	6.621E-07	3.975E-08	1.856E-06	0.000E+00	7.681E-07	0.000E+00	0.000E+00	3.326E-06	0	0.000E+00
259	6.185E-07	3.688E-08	1.722E-06	0.000E+00	7.129E-07	0.000E+00	0.000E+00	3.090E-06	0	0.000E+00
260	6.059E-07	3.609E-08	1.685E-06	0.000E+00	6.977E-07	0.000E+00	0.000E+00	3.025E-06	0	0.000E+00
261	5.694E-07	3.413E-08	1.594E-06	0.000E+00	6.594E-07	0.000E+00	0.000E+00	2.857E-06	0	0.000E+00
262	5.156E-07	3.113E-08	1.454E-06	0.000E+00	6.010E-07	0.000E+00	0.000E+00	2.601E-06	0	0.000E+00
263	4.569E-07	2.757E-08	1.287E-06	0.000E+00	5.323E-07	0.000E+00	0.000E+00	2.304E-06	0	0.000E+00
264	3.864E-07	2.326E-08	1.086E-06	0.000E+00	4.491E-07	0.000E+00	0.000E+00	1.945E-06	0	0.000E+00
265	7.153E-08	4.247E-09	1.983E-07	0.000E+00	8.190E-08	0.000E+00	0.000E+00	3.560E-07	0	0.000E+00
266	8.302E-08	4.954E-09	2.314E-07	0.000E+00	9.555E-08	0.000E+00	0.000E+00	4.149E-07	0	0.000E+00
267	1.019E-07	6.107E-09	2.852E-07	0.000E+00	1.178E-07	0.000E+00	0.000E+00	5.110E-07	0	0.000E+00
268	1.274E-07	7.642E-09	3.569E-07	0.000E+00	1.474E-07	0.000E+00	0.000E+00	6.393E-07	0	0.000E+00
269	1.630E-07	9.791E-09	4.572E-07	0.000E+00	1.890E-07	0.000E+00	0.000E+00	8.190E-07	0	0.000E+00
270	2.107E-07	1.264E-08	5.901E-07	0.000E+00	2.440E-07	0.000E+00	0.000E+00	1.057E-06	0	0.000E+00
271	2.843E-07	1.705E-08	7.964E-07	0.000E+00	3.294E-07	0.000E+00	0.000E+00	1.427E-06	0	0.000E+00
272	4.030E-07	2.412E-08	1.126E-06	0.000E+00	4.661E-07	0.000E+00	0.000E+00	2.019E-06	0	0.000E+00
273	5.894E-07	3.521E-08	1.644E-06	0.000E+00	6.805E-07	0.000E+00	0.000E+00	2.949E-06	0	0.000E+00
274	7.997E-07	4.761E-08	2.223E-06	0.000E+00	9.197E-07	0.000E+00	0.000E+00	3.990E-06	0	0.000E+00
275	9.224E-07	5.512E-08	2.574E-06	0.000E+00	1.065E-06	0.000E+00	0.000E+00	4.616E-06	0	0.000E+00
276	9.182E-07	5.506E-08	2.571E-06	0.000E+00	1.064E-06	0.000E+00	0.000E+00	4.608E-06	0	0.000E+00
277	8.698E-07	5.193E-08	2.424E-06	0.000E+00	1.004E-06	0.000E+00	0.000E+00	4.350E-06	0	0.000E+00
278	8.186E-07	4.873E-08	2.275E-06	0.000E+00	9.421E-07	0.000E+00	0.000E+00	4.084E-06	0	0.000E+00
279	7.711E-07	4.608E-08	2.152E-06	0.000E+00	8.906E-07	0.000E+00	0.000E+00	3.859E-06	0	0.000E+00
280	6.686E-07	4.033E-08	1.883E-06	0.000E+00	7.788E-07	0.000E+00	0.000E+00	3.371E-06	0	0.000E+00
281	5.705E-07	3.446E-08	1.609E-06	0.000E+00	6.654E-07	0.000E+00	0.000E+00	2.880E-06	0	0.000E+00
282	4.753E-07	2.861E-08	1.336E-06	0.000E+00	5.525E-07	0.000E+00	0.000E+00	2.392E-06	0	0.000E+00
283	3.790E-07	2.277E-08	1.063E-06	0.000E+00	4.399E-07	0.000E+00	0.000E+00	1.905E-06	0	0.000E+00
284	7.312E-08	4.370E-09	2.041E-07	0.000E+00	8.425E-08	0.000E+00	0.000E+00	3.658E-07	0	0.000E+00
285	8.541E-08	5.082E-09	2.374E-07	0.000E+00	9.799E-08	0.000E+00	0.000E+00	4.258E-07	0	0.000E+00
286	1.012E-07	6.023E-09	2.813E-07	0.000E+00	1.162E-07	0.000E+00	0.000E+00	5.047E-07	0	0.000E+00
287	1.254E-07	7.488E-09	3.497E-07	0.000E+00	1.445E-07	0.000E+00	0.000E+00	6.270E-07	0	0.000E+00
288	1.592E-07	9.534E-09	4.452E-07	0.000E+00	1.840E-07	0.000E+00	0.000E+00	7.979E-07	0	0.000E+00
289	2.121E-07	1.274E-08	5.950E-07	0.000E+00	2.459E-07	0.000E+00	0.000E+00	1.066E-06	0	0.000E+00
290	2.957E-07	1.773E-08	8.279E-07	0.000E+00	3.424E-07	0.000E+00	0.000E+00	1.484E-06	0	0.000E+00
291	4.420E-07	2.644E-08	1.234E-06	0.000E+00	5.108E-07	0.000E+00	0.000E+00	2.214E-06	0	0.000E+00
292	7.626E-07	4.486E-08	2.095E-06	0.000E+00	8.657E-07	0.000E+00	0.000E+00	3.768E-06	0	0.000E+00
293	1.046E-06	6.229E-08	2.908E-06	0.000E+00	1.204E-06	0.000E+00	0.000E+00	5.221E-06	0	0.000E+00
294	6.053E-07	3.647E-08	1.703E-06	0.000E+00	7.042E-07	0.000E+00	0.000E+00	3.049E-06	0	0.000E+00
295	4.661E-07	2.800E-08	1.308E-06	0.000E+00	5.409E-07	0.000E+00	0.000E+00	2.343E-06	0	0.000E+00
296	3.484E-07	2.093E-08	9.775E-07	0.000E+00	4.044E-07	0.000E+00	0.000E+00	1.751E-06	0	0.000E+00
297	6.625E-08	3.984E-09	1.861E-07	0.000E+00	7.677E-08	0.000E+00	0.000E+00	3.331E-07	0	0.000E+00
298	8.027E-08	4.822E-09	2.252E-07	0.000E+00	9.292E-08	0.000E+00	0.000E+00	4.032E-07	0	0.000E+00
299	9.814E-08	5.881E-09	2.747E-07	0.000E+00	1.133E-07	0.000E+00	0.000E+00	4.920E-07	0	0.000E+00
300	1.196E-07	7.164E-09	3.346E-07	0.000E+00	1.381E-07	0.000E+00	0.000E+00	5.996E-07	0	0.000E+00
301	1.542E-07	9.235E-09	4.313E-07	0.000E+00	1.782E-07	0.000E+00	0.000E+00	7.729E-07	0	0.000E+00
302	2.100E-07	1.257E-08	5.869E-07	0.000E+00	2.426E-07	0.000E+00	0.000E+00	1.052E-06	0	0.000E+00
303	3.035E-07	1.818E-08	8.491E-07	0.000E+00	3.511E-07	0.000E+00	0.000E+00	1.522E-06	0	0.000E+00
304	4.772E-07	2.854E-08	1.333E-06	0.000E+00	5.515E-07	0.000E+00	0.000E+00	2.390E-06	0	0.000E+00
305	8.709E-07	5.155E-08	2.407E-06	0.000E+00	9.967E-07	0.000E+00	0.000E+00	4.326E-06	0	0.000E+00
306	6.087E-07	3.644E-08	1.701E-06	0.000E+00	7.040E-07	0.000E+00	0.000E+00	3.050E-06	0	0.000E+00
307	4.349E-07	2.604E-08	1.216E-06	0.000E+00	5.032E-07	0.000E+00	0.000E+00	2.180E-06	0	0.000E+00
308	3.220E-07	1.929E-08	9.005E-07	0.000E+00	3.727E-07	0.000E+00	0.000E+00	1.615E-06	0	0.000E+00
309	5.482E-08	3.249E-09	1.518E-07	0.000E+00	6.256E-08	0.000E+00	0.000E+00	2.724E-07	0	0.000E+00
310	6.772E-08	4.036E-09	1.885E-07	0.000E+00	7.776E-08	0.000E+00	0.000E+00	3.381E-07	0	0.000E+00
311	8.535E-08	5.106E-09	2.385E-07	0.000E+00	9.840E-08	0.000E+00	0.000E+00	4.274E-07	0	0.000E+00
312	1.092E-07	6.551E-09	3.060E-07	0.000E+00	1.263E-07	0.000E+00	0.000E+00	5.480E-07	0	0.000E+00
313	1.414E-07	8.489E-09	3.965E-07	0.000E+00	1.637E-07	0.000E+00	0.000E+00	7.100E-07	0	0.000E+00
314	1.948E-07	1.171E-08	5.468E-07	0.000E+00	2.258E-07	0.000E+00	0.000E+00	9.792E-07	0	0.000E+00
315	2.875E-07	1.728E-08	8.072E-07	0.000E+00	3.336E-07	0.000E+00	0.000E+00	1.446E-06	0	0.000E+00
316	4.780E-07	2.864E-08	1.338E-06	0.000E+00	5.532E-07	0.000E+00	0.000E+00	2.397E-06	0	0.000E+00
317	1.038E-06	6.138E-08	2.866E-06	0.000E+00	1.187E-06	0.000E+00	0.000E+00	5.152E-06	0	0.000E+00
318	5.572E-07	3.324E-08	1.552E-06	0.000E+00	6.425E-07	0.000E+00	0.000E+00	2.785E-06	0	0.000E+00
319	3.800E-07	2.276E-08	1.063E-06	0.000E+00	4.397E-07	0.000E+00	0.000E+00	1.905E-06	0	0.000E+00
320	2.838E-07	1.704E-08	7.957E-07	0.000E+00	3.292E-07	0.000E+00	0.000E+00	1.426E-06	0	0.000E+00
321	4.760E-08	2.807E-09	1.311E-07	0.000E+00	5.403E-08	0.000E+00	0.000E+00	2.356E-07	0	0.000E+00
322	5.735E-08	3.378E-09	1.578E-07	0.000E+00	6.500E-08	0.000E+00	0.000E+00	2.836E-07	0	0.000E+00
323	6.857E-08	4.063E-09	1.898E-07	0.000E+00	7.822E-08	0.000E+00	0.000E+00	3.406E-07	0	0.000E+00
324	8.613E-08	5.137E-09	2.400E-07	0.000E+00	9.898E-08	0.000E+00	0.000E+00	4.302E-07	0	0.000E+00
325	1.163E-07	6.964E-09	3.253E-07	0.000E+00	1.342E-07	0.000E+00	0.000E+00	5.827E-07	0	0.000E+00
326	1.641E-07	9.858E-09	4.605E-07	0.000E+00	1.901E-07	0.000E+00	0.000E+00	8.245E-07	0	0.000E+00
327	2.452E-07	1.477E-08	6.899E-07	0.000E+00	2.849E-07	0.000E+00	0.000E+00	1.235E-06	0	0.000E+00
328	4.253E-07	2.555E-08	1.193E-06	0.000E+00	4.932E-07	0.000E+00	0.000E+00	2.137E-06	0	0.000E+00
329	1.044E-06	6.198E-08	2.894E-06	0.000E+00	1.198E-06	0.000E+00	0.000E+00	5.198E-06	0	0.000E+00
330	4.775E-07	2.856E-08	1.334E-06	0.000E+00	5.520E-07	0.000E+00	0.000E+00	2.392E-06	0	0.000E+00
331	3.474E-07	2.087E-08	9.744E-07	0.000E+00	4.032E-07	0.000E+00	0.000E+00	1.746E-06	0	0.000E+00
332	2.745E-07	1.652E-08	7.716E-07	0.000E+00	3.192E-07	0.000E+00	0.000E+00	1.382E-06	0	0.000E+00
333	4.344E-08	2.591E-09	1.210E-07	0.000E+00	4.993E-08	0.000E+00	0.000E+00	2.170E-07	0	0.000E+00
334	5.028E-08	3.004E-09	1.403E-07	0.000E+00	5.790E-08	0.000E+00	0.000E+00	2.515E-07	0	0.000E+00
335	5.987E-08	3.576E-09	1.670E-07	0.000E+00	6.891E-08	0.000E+00	0.000E+00	2.994E-07	0	0.000E+00
336	7.391E-08	4.414E-09	2.062E-07	0.000E+00	8.504E-08	0.000E+00	0.000E+00	3.696E-07	0	0.000E+00
337	9.504E-08	5.667E-09	2.647E-07	0.000E+00	1.092E-07	0.000E+00	0.000E+00	4.746E-07	0	0.000E+00
338	1.270E-07	7.592E-09	3.546E-07	0.000E+00	1.463E-07	0.000E+00	0.000E+00	6.355E-07	0	0.000E+00
339	1.956E-07	1.172E-08	5.475E-07	0.000E+00	2.259E-07	0.000E+00	0.000E+00	9.808E-07	0	0.000E+00
340	3.499E-07	2.099E-08	9.801E-07	0.000E+00	4.048E-07	0.000E+00	0.000E+00	1.756E-06	0	0.000E+00
341	1.298E-06	7.609E-08	3.552E-06	0.000E+00	1.472E-06	0.000E+00	0.000E+00	6.397E-06	0	0.000E+00
342	6.291E-07	3.759E-08	1.755E-06	0.000E+00	7.265E-07	0.000E+00	0.000E+00	3.148E-06	0	0.000E+00
343	4.243E-07	2.549E-08	1.190E-06	0.000E+00	4.926E-07	0.000E+00	0.000E+00	2.133E-06	0	0.000E+00
344	3.167E-07	1.907E-08	8.903E-07	0.000E+00	3.683E-07	0.000E+00	0.000E+00	1.594E-06	0	0.000E+00
345	2.466E-07	1.486E-08	6.939E-07	0.000E+00	2.870E-07	0.000E+00	0.000E+00	1.242E-06	0	0.000E+00
346	4.026E-08	2.375E-09	1.110E-07	0.000E+00	4.569E-08	0.000E+00	0.000E+00	1.993E-07	0	0.000E+00
347	4.468E-08	2.655E-09	1.240E-07	0.000E+00	5.113E-08	0.000E+00	0.000E+00	2.225E-07	0	0.000E+00
348	5.198E-08	3.101E-09	1.449E-07	0.000E+00	5.975E-08	0.000E+00	0.000E+00	2.597E-07	0	0.000E+00

349	6.242E-08	3.730E-09	1.742E-07	0.000E+00	7.190E-08	0.000E+00	0.000E+00	3.122E-07	0	0.000E+00
350	7.848E-08	4.688E-09	2.190E-07	0.000E+00	9.042E-08	0.000E+00	0.000E+00	3.926E-07	0	0.000E+00
351	1.047E-07	6.263E-09	2.925E-07	0.000E+00	1.208E-07	0.000E+00	0.000E+00	5.243E-07	0	0.000E+00
352	1.560E-07	9.355E-09	4.369E-07	0.000E+00	1.804E-07	0.000E+00	0.000E+00	7.828E-07	0	0.000E+00
353	2.623E-07	1.576E-08	7.359E-07	0.000E+00	3.037E-07	0.000E+00	0.000E+00	1.318E-06	0	0.000E+00
354	9.007E-07	5.320E-08	2.483E-06	0.000E+00	1.029E-06	0.000E+00	0.000E+00	4.466E-06	0	0.000E+00
355	5.021E-07	3.000E-08	1.401E-06	0.000E+00	5.799E-07	0.000E+00	0.000E+00	2.513E-06	0	0.000E+00
356	3.446E-07	2.070E-08	9.667E-07	0.000E+00	4.000E-07	0.000E+00	0.000E+00	1.732E-06	0	0.000E+00
357	2.613E-07	1.574E-08	7.349E-07	0.000E+00	3.040E-07	0.000E+00	0.000E+00	1.316E-06	0	0.000E+00
358	2.115E-07	1.274E-08	5.951E-07	0.000E+00	2.462E-07	0.000E+00	0.000E+00	1.065E-06	0	0.000E+00
359	3.569E-08	2.089E-09	9.762E-08	0.000E+00	4.021E-08	0.000E+00	0.000E+00	1.756E-07	0	0.000E+00
360	4.145E-08	2.421E-09	1.131E-07	0.000E+00	4.660E-08	0.000E+00	0.000E+00	2.036E-07	0	0.000E+00
361	4.648E-08	2.748E-09	1.284E-07	0.000E+00	5.297E-08	0.000E+00	0.000E+00	2.306E-07	0	0.000E+00
362	5.585E-08	3.319E-09	1.550E-07	0.000E+00	6.400E-08	0.000E+00	0.000E+00	2.782E-07	0	0.000E+00
363	6.939E-08	4.142E-09	1.934E-07	0.000E+00	7.990E-08	0.000E+00	0.000E+00	3.468E-07	0	0.000E+00
364	8.986E-08	5.388E-09	2.516E-07	0.000E+00	1.040E-07	0.000E+00	0.000E+00	4.508E-07	0	0.000E+00
365	1.213E-07	7.310E-09	3.414E-07	0.000E+00	1.411E-07	0.000E+00	0.000E+00	6.110E-07	0	0.000E+00
366	1.909E-07	1.151E-08	5.375E-07	0.000E+00	2.221E-07	0.000E+00	0.000E+00	9.620E-07	0	0.000E+00
367	4.281E-07	2.577E-08	1.203E-06	0.000E+00	4.974E-07	0.000E+00	0.000E+00	2.155E-06	0	0.000E+00
368	1.453E-06	8.892E-08	4.153E-06	0.000E+00	1.716E-06	0.000E+00	0.000E+00	7.411E-06	0	0.000E+00
369	1.129E-06	6.714E-08	3.134E-06	0.000E+00	1.298E-06	0.000E+00	0.000E+00	5.628E-06	0	0.000E+00
370	6.623E-07	3.942E-08	1.840E-06	0.000E+00	7.622E-07	0.000E+00	0.000E+00	3.304E-06	0	0.000E+00
371	4.197E-07	2.508E-08	1.171E-06	0.000E+00	4.847E-07	0.000E+00	0.000E+00	2.100E-06	0	0.000E+00
372	2.941E-07	1.763E-08	8.234E-07	0.000E+00	3.408E-07	0.000E+00	0.000E+00	1.476E-06	0	0.000E+00
373	2.221E-07	1.334E-08	6.231E-07	0.000E+00	2.578E-07	0.000E+00	0.000E+00	1.116E-06	0	0.000E+00
374	1.794E-07	1.080E-08	5.044E-07	0.000E+00	2.087E-07	0.000E+00	0.000E+00	9.032E-07	0	0.000E+00
375	3.422E-08	2.004E-09	9.363E-08	0.000E+00	3.859E-08	0.000E+00	0.000E+00	1.684E-07	0	0.000E+00
376	3.979E-08	2.332E-09	1.090E-07	0.000E+00	4.491E-08	0.000E+00	0.000E+00	1.960E-07	0	0.000E+00
377	4.687E-08	2.749E-09	1.284E-07	0.000E+00	5.295E-08	0.000E+00	0.000E+00	2.310E-07	0	0.000E+00
378	5.336E-08	3.180E-09	1.485E-07	0.000E+00	6.135E-08	0.000E+00	0.000E+00	2.664E-07	0	0.000E+00
379	6.677E-08	4.010E-09	1.873E-07	0.000E+00	7.737E-08	0.000E+00	0.000E+00	3.354E-07	0	0.000E+00
380	8.509E-08	5.138E-09	2.399E-07	0.000E+00	9.911E-08	0.000E+00	0.000E+00	4.293E-07	0	0.000E+00
381	1.143E-07	6.904E-09	3.224E-07	0.000E+00	1.332E-07	0.000E+00	0.000E+00	5.769E-07	0	0.000E+00
382	1.656E-07	9.933E-09	4.639E-07	0.000E+00	1.917E-07	0.000E+00	0.000E+00	8.311E-07	0	0.000E+00
383	3.218E-07	1.937E-08	9.044E-07	0.000E+00	3.739E-07	0.000E+00	0.000E+00	1.619E-06	0	0.000E+00
384	6.466E-07	3.947E-08	1.844E-06	0.000E+00	7.614E-07	0.000E+00	0.000E+00	3.291E-06	0	0.000E+00
385	8.170E-07	5.013E-08	2.342E-06	0.000E+00	9.667E-07	0.000E+00	0.000E+00	4.175E-06	0	0.000E+00
386	8.980E-07	5.533E-08	2.584E-06	0.000E+00	1.067E-06	0.000E+00	0.000E+00	4.605E-06	0	0.000E+00
387	8.513E-07	5.200E-08	2.429E-06	0.000E+00	1.004E-06	0.000E+00	0.000E+00	4.335E-06	0	0.000E+00
388	7.070E-07	4.261E-08	1.990E-06	0.000E+00	8.231E-07	0.000E+00	0.000E+00	3.562E-06	0	0.000E+00
389	5.230E-07	3.139E-08	1.465E-06	0.000E+00	6.065E-07	0.000E+00	0.000E+00	2.626E-06	0	0.000E+00
390	3.703E-07	2.222E-08	1.037E-06	0.000E+00	4.293E-07	0.000E+00	0.000E+00	1.859E-06	0	0.000E+00
391	2.746E-07	1.646E-08	7.686E-07	0.000E+00	3.181E-07	0.000E+00	0.000E+00	1.378E-06	0	0.000E+00
392	2.098E-07	1.259E-08	5.878E-07	0.000E+00	2.433E-07	0.000E+00	0.000E+00	1.053E-06	0	0.000E+00
393	1.690E-07	1.016E-08	4.744E-07	0.000E+00	1.963E-07	0.000E+00	0.000E+00	8.499E-07	0	0.000E+00
394	3.413E-08	2.007E-09	9.376E-08	0.000E+00	3.866E-08	0.000E+00	0.000E+00	1.686E-07	0	0.000E+00
395	4.101E-08	2.424E-09	1.132E-07	0.000E+00	4.669E-08	0.000E+00	0.000E+00	2.033E-07	0	0.000E+00
396	4.993E-08	2.954E-09	1.380E-07	0.000E+00	5.688E-08	0.000E+00	0.000E+00	2.478E-07	0	0.000E+00
397	5.716E-08	3.408E-09	1.592E-07	0.000E+00	6.568E-08	0.000E+00	0.000E+00	2.855E-07	0	0.000E+00
398	6.503E-08	3.899E-09	1.821E-07	0.000E+00	7.517E-08	0.000E+00	0.000E+00	3.262E-07	0	0.000E+00
399	7.645E-08	4.602E-09	2.149E-07	0.000E+00	8.875E-08	0.000E+00	0.000E+00	3.847E-07	0	0.000E+00
400	9.771E-08	5.853E-09	2.733E-07	0.000E+00	1.130E-07	0.000E+00	0.000E+00	4.899E-07	0	0.000E+00
401	1.449E-07	8.672E-09	4.050E-07	0.000E+00	1.675E-07	0.000E+00	0.000E+00	7.260E-07	0	0.000E+00
402	2.580E-07	1.552E-08	7.247E-07	0.000E+00	2.996E-07	0.000E+00	0.000E+00	1.298E-06	0	0.000E+00
403	4.196E-07	2.551E-08	1.191E-06	0.000E+00	4.921E-07	0.000E+00	0.000E+00	2.129E-06	0	0.000E+00
404	5.461E-07	3.342E-08	1.561E-06	0.000E+00	6.446E-07	0.000E+00	0.000E+00	2.785E-06	0	0.000E+00
405	6.071E-07	3.715E-08	1.735E-06	0.000E+00	7.164E-07	0.000E+00	0.000E+00	3.096E-06	0	0.000E+00
406	5.898E-07	3.593E-08	1.678E-06	0.000E+00	6.933E-07	0.000E+00	0.000E+00	2.997E-06	0	0.000E+00
407	5.134E-07	3.109E-08	1.452E-06	0.000E+00	6.002E-07	0.000E+00	0.000E+00	2.596E-06	0	0.000E+00
408	4.119E-07	2.479E-08	1.157E-06	0.000E+00	4.789E-07	0.000E+00	0.000E+00	2.073E-06	0	0.000E+00
409	3.224E-07	1.942E-08	9.067E-07	0.000E+00	3.751E-07	0.000E+00	0.000E+00	1.624E-06	0	0.000E+00
410	2.561E-07	1.540E-08	7.192E-07	0.000E+00	2.976E-07	0.000E+00	0.000E+00	1.288E-06	0	0.000E+00
411	2.050E-07	1.231E-08	5.750E-07	0.000E+00	2.379E-07	0.000E+00	0.000E+00	1.030E-06	0	0.000E+00
412	1.633E-07	9.819E-09	4.585E-07	0.000E+00	1.897E-07	0.000E+00	0.000E+00	8.213E-07	0	0.000E+00
413	5.693E-08	3.401E-09	1.588E-07	0.000E+00	6.553E-08	0.000E+00	0.000E+00	2.847E-07	0	0.000E+00
414	4.944E-08	2.950E-09	1.378E-07	0.000E+00	5.688E-08	0.000E+00	0.000E+00	2.471E-07	0	0.000E+00
415	4.628E-08	2.726E-09	1.273E-07	0.000E+00	5.259E-08	0.000E+00	0.000E+00	2.289E-07	0	0.000E+00
416	6.684E-08	3.998E-09	1.867E-07	0.000E+00	7.714E-08	0.000E+00	0.000E+00	3.347E-07	0	0.000E+00
417	6.139E-08	3.629E-09	1.694E-07	0.000E+00	7.005E-08	0.000E+00	0.000E+00	3.045E-07	0	0.000E+00
418	6.354E-08	3.776E-09	1.763E-07	0.000E+00	7.287E-08	0.000E+00	0.000E+00	3.165E-07	0	0.000E+00
419	8.690E-08	5.166E-09	2.412E-07	0.000E+00	9.976E-08	0.000E+00	0.000E+00	4.330E-07	0	0.000E+00
420	8.914E-08	5.344E-09	2.495E-07	0.000E+00	1.031E-07	0.000E+00	0.000E+00	4.472E-07	0	0.000E+00
421	8.430E-08	5.051E-09	2.359E-07	0.000E+00	9.742E-08	0.000E+00	0.000E+00	4.227E-07	0	0.000E+00
422	1.339E-07	8.049E-09	3.759E-07	0.000E+00	1.554E-07	0.000E+00	0.000E+00	6.732E-07	0	0.000E+00
423	1.231E-07	7.387E-09	3.450E-07	0.000E+00	1.426E-07	0.000E+00	0.000E+00	6.180E-07	0	0.000E+00
424	1.156E-07	6.947E-09	3.244E-07	0.000E+00	1.340E-07	0.000E+00	0.000E+00	5.810E-07	0	0.000E+00
425	2.161E-07	1.302E-08	6.080E-07	0.000E+00	2.513E-07	0.000E+00	0.000E+00	1.088E-06	0	0.000E+00
426	1.885E-07	1.138E-08	5.313E-07	0.000E+00	2.196E-07	0.000E+00	0.000E+00	9.508E-07	0	0.000E+00
427	1.694E-07	1.020E-08	4.764E-07	0.000E+00	1.968E-07	0.000E+00	0.000E+00	8.528E-07	0	0.000E+00
428	3.209E-07	1.949E-08	9.103E-07	0.000E+00	3.760E-07	0.000E+00	0.000E+00	1.627E-06	0	0.000E+00
429	2.630E-07	1.593E-08	7.440E-07	0.000E+00	3.074E-07	0.000E+00	0.000E+00	1.330E-06	0	0.000E+00
430	2.217E-07	1.342E-08	6.267E-07	0.000E+00	2.589E-07	0.000E+00	0.000E+00	1.121E-06	0	0.000E+00
431	4.010E-07	2.449E-08	1.144E-06	0.000E+00	4.724E-07	0.000E+00	0.000E+00	2.042E-06	0	0.000E+00
432	3.096E-07	1.888E-08	8.820E-07	0.000E+00	3.643E-07	0.000E+00	0.000E+00	1.575E-06	0	0.000E+00
433	2.507E-07	1.528E-08	7.137E-07	0.000E+00	2.948E-07	0.000E+00	0.000E+00	1.274E-06	0	0.000E+00
434	4.401E-07	2.682E-08	1.253E-06	0.000E+00	5.174E-07	0.000E+00	0.000E+00	2.237E-06	0	0.000E+00
435	3.386E-07	2.060E-08	9.619E-07	0.000E+00	3.974E-07	0.000E+00	0.000E+00	1.719E-06	0	0.000E+00
436	2.703E-07	1.642E-08	7.668E-07	0.000E+00	3.169E-07	0.000E+00	0.000E+00	1.370E-06	0	0.000E+00
437	4.426E-07	2.683E-08	1.253E-06	0.000E+00	5.178E-07	0.000E+00	0.000E+00	2.240E-06	0	0.000E+00
438	3.434E-07	2.076E-08	9.694E-07	0.000E+00	4.006E-07	0.000E+00	0.000E+00	1.734E-06	0	0.000E+00
439	2.748E-07	1.659E-08	7.749E-07	0.000E+00	3.203E-07	0.000E+00	0.000E+00	1.387E-06	0	0.000E+00
440	3.975E-07	2.409E-08	1.125E-06	0.000E+00	4.650E-07	0.000E+00	0.000E+00	2.012E-06	0	0.000E+00
441	3.227E-07	1.953E-08	9.118E-07	0.000E+00	3.768E-07	0.000E+00	0.000E+00	1.631E-06	0	0.000E+00
442	2.668E-07	1.613E-08	7.533E-07	0.000E+00	3.113E-07	0.000E+00	0.000E+00	1.348E-06	0	0.000E+00
443	3.372E-07	2.026E-08	9.460E-07	0.000E+00	3.911E-07	0.000E+00	0.000E+00	1.695E-06	0	0.000E+00
444	2.850E-07	1.713E-08	8.000E-07	0.000E+00	3.305E-07	0.000E+00	0.000E+00	1.433E-06	0	0.000E+00
445	2.391E-07	1.446E-08	6.753E-07	0.000E+00	2.791E-07	0.000E+00	0.000E+00	1.208E-06	0	0.000E+00

446	2.777E-07	1.671E-08	7.804E-07	0.000E+00	3.228E-07	0.000E+00	0.000E+00	1.398E-06	0	0.000E+00
447	2.368E-07	1.426E-08	6.657E-07	0.000E+00	2.754E-07	0.000E+00	0.000E+00	1.192E-06	0	0.000E+00
448	2.061E-07	1.241E-08	5.795E-07	0.000E+00	2.396E-07	0.000E+00	0.000E+00	1.038E-06	0	0.000E+00
449	2.286E-07	1.380E-08	6.443E-07	0.000E+00	2.665E-07	0.000E+00	0.000E+00	1.153E-06	0	0.000E+00
450	2.004E-07	1.210E-08	5.649E-07	0.000E+00	2.336E-07	0.000E+00	0.000E+00	1.011E-06	0	0.000E+00
451	1.779E-07	1.071E-08	5.003E-07	0.000E+00	2.069E-07	0.000E+00	0.000E+00	8.958E-07	0	0.000E+00

RECEPTOR # 68 HAS MAXIMUM PEAK RISK OF 2.621E-05
PEAK RECEPTOR LOCATED AT (X, Y) = 391445.000 3870519.000
RECEPTOR POPULATION = 0
RECEPTOR BURDEN = 0.000E+00

TOTAL CANCER EXCESS BURDEN FROM ALL RECEPTORS = 0.000E+00
BURDEN COMPUTED WITH ZONE OF IMPACT RISK LEVEL = 1.000E-07

*** 70-YEAR LIFETIME CANCER RISK BY SOURCE FOR PEAK RECEPTOR # 68 ***

SOURCE	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
1	2.125E-09	1.438E-10	6.721E-09	0.000E+00	2.756E-09	0.000E+00	0.000E+00	1.175E-08
2	2.590E-09	1.752E-10	8.189E-09	0.000E+00	3.358E-09	0.000E+00	0.000E+00	1.431E-08
3	1.499E-08	1.014E-09	4.741E-08	0.000E+00	1.944E-08	0.000E+00	0.000E+00	8.286E-08
4	2.686E-08	1.817E-09	8.493E-08	0.000E+00	3.483E-08	0.000E+00	0.000E+00	1.484E-07
5	2.047E-08	1.385E-09	6.473E-08	0.000E+00	2.655E-08	0.000E+00	0.000E+00	1.131E-07
6	1.598E-08	1.081E-09	5.052E-08	0.000E+00	2.072E-08	0.000E+00	0.000E+00	8.829E-08
7	1.150E-09	7.789E-11	3.642E-09	0.000E+00	1.493E-09	0.000E+00	0.000E+00	6.363E-09
8	7.426E-10	5.030E-11	2.351E-09	0.000E+00	9.641E-10	0.000E+00	0.000E+00	4.108E-09
9	1.023E-09	6.931E-11	3.240E-09	0.000E+00	1.329E-09	0.000E+00	0.000E+00	5.662E-09
10	5.386E-10	3.648E-11	1.705E-09	0.000E+00	6.993E-10	0.000E+00	0.000E+00	2.980E-09
11	5.310E-10	3.596E-11	1.681E-09	0.000E+00	6.894E-10	0.000E+00	0.000E+00	2.938E-09
12	4.079E-10	2.763E-11	1.292E-09	0.000E+00	5.296E-10	0.000E+00	0.000E+00	2.257E-09
13	3.070E-08	2.077E-09	9.708E-08	0.000E+00	3.981E-08	0.000E+00	0.000E+00	1.697E-07
14	3.706E-08	2.507E-09	1.172E-07	0.000E+00	4.805E-08	0.000E+00	0.000E+00	2.048E-07
15	2.126E-07	1.438E-08	6.722E-07	0.000E+00	2.756E-07	0.000E+00	0.000E+00	1.175E-06
16	3.747E-07	2.534E-08	1.185E-06	0.000E+00	4.858E-07	0.000E+00	0.000E+00	2.071E-06
17	2.679E-07	1.812E-08	8.470E-07	0.000E+00	3.473E-07	0.000E+00	0.000E+00	1.480E-06
18	2.183E-07	1.476E-08	6.902E-07	0.000E+00	2.830E-07	0.000E+00	0.000E+00	1.206E-06
19	1.756E-08	9.783E-10	4.564E-08	0.000E+00	1.901E-08	0.000E+00	0.000E+00	8.318E-08
20	2.137E-08	1.191E-09	5.554E-08	0.000E+00	2.313E-08	0.000E+00	0.000E+00	1.012E-07
21	1.014E-07	5.647E-09	2.634E-07	0.000E+00	1.097E-07	0.000E+00	0.000E+00	4.802E-07
22	1.777E-07	9.902E-09	4.619E-07	0.000E+00	1.924E-07	0.000E+00	0.000E+00	8.419E-07
23	1.256E-07	6.999E-09	3.265E-07	0.000E+00	1.360E-07	0.000E+00	0.000E+00	5.951E-07
24	9.703E-08	5.407E-09	2.522E-07	0.000E+00	1.050E-07	0.000E+00	0.000E+00	4.597E-07
25	7.461E-08	3.523E-09	1.654E-07	0.000E+00	6.573E-08	0.000E+00	0.000E+00	3.093E-07
26	1.107E-07	6.167E-09	2.877E-07	0.000E+00	1.198E-07	0.000E+00	0.000E+00	5.243E-07
27	2.688E-07	1.498E-08	6.986E-07	0.000E+00	2.910E-07	0.000E+00	0.000E+00	1.273E-06
28	3.467E-07	1.932E-08	9.013E-07	0.000E+00	3.754E-07	0.000E+00	0.000E+00	1.643E-06
29	1.746E-06	9.730E-08	4.539E-06	0.000E+00	1.890E-06	0.000E+00	0.000E+00	8.273E-06
30	1.070E-07	5.962E-09	2.781E-07	0.000E+00	1.158E-07	0.000E+00	0.000E+00	5.069E-07
31	2.055E-08	1.145E-09	5.342E-08	0.000E+00	2.225E-08	0.000E+00	0.000E+00	9.737E-08
32	4.929E-08	2.746E-09	1.281E-07	0.000E+00	5.336E-08	0.000E+00	0.000E+00	2.335E-07
33	6.105E-08	3.401E-09	1.587E-07	0.000E+00	6.609E-08	0.000E+00	0.000E+00	2.892E-07
34	2.386E-07	1.329E-08	6.201E-07	0.000E+00	2.583E-07	0.000E+00	0.000E+00	1.130E-06
35	1.982E-08	1.105E-09	5.152E-08	0.000E+00	2.146E-08	0.000E+00	0.000E+00	9.391E-08
36	3.081E-08	1.717E-09	8.008E-08	0.000E+00	3.335E-08	0.000E+00	0.000E+00	1.459E-07
37	7.320E-08	4.078E-09	1.903E-07	0.000E+00	7.924E-08	0.000E+00	0.000E+00	3.468E-07
38	8.804E-08	4.906E-09	2.288E-07	0.000E+00	9.531E-08	0.000E+00	0.000E+00	4.171E-07
39	3.021E-07	1.683E-08	7.851E-07	0.000E+00	3.270E-07	0.000E+00	0.000E+00	1.431E-06
40	2.966E-08	1.652E-09	7.709E-08	0.000E+00	3.211E-08	0.000E+00	0.000E+00	1.405E-07
41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
45	4.605E-09	1.825E-12	8.625E-12	0.000E+00	3.471E-12	0.000E+00	0.000E+00	4.619E-09
46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	5.341E-06	3.113E-07	1.453E-05	0.000E+00	6.025E-06	0.000E+00	0.000E+00	2.621E-05

RECEPTOR RISK OF 2.621E-05 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 2.621E-05 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07
RECEPTOR POPULATION = 0
RECEPTOR BURDEN = 0.000E+00

*** 70-YEAR LIFETIME CANCER RISK BY POLLUTANT FOR PEAK RECEPTOR # 68 ***

POLLUTANT	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM

ACETA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	3.986E-06	2.814E-07	1.330E-05	0.000E+00	5.541E-06	0.000E+00	0.000E+00	2.310E-05
BENZE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	1.204E-07	2.578E-08	1.218E-06	0.000E+00	4.761E-07	0.000E+00	0.000E+00	1.840E-06
Cd	1.863E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.863E-07
Cr	1.023E-06	4.187E-09	1.978E-08	0.000E+00	7.963E-09	0.000E+00	0.000E+00	1.055E-06
HCHO	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	1.641E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.641E-08
Ni	8.714E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.714E-09
PAH	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	5.341E-06	3.113E-07	1.453E-05	0.000E+00	6.025E-06	0.000E+00	0.000E+00	2.621E-05

RECEPTOR RISK OF 2.621E-05 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 2.621E-05 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07
RECEPTOR POPULATION = 0
RECEPTOR BURDEN = 0.000E+00

*** 70-YEAR LIFETIME DOSE (mg/kg/d) BY POLLUTANT FOR PEAK RECEPTOR # 68 ***

LLUTANT	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
ACETA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	3.451E-07	1.655E-07	7.821E-06	0.000E+00	3.259E-06	0.000E+00	0.000E+00	1.159E-05
BENZE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	1.434E-08	5.995E-09	2.833E-07	0.000E+00	1.107E-07	0.000E+00	0.000E+00	4.143E-07
Cd	1.267E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.267E-08
Cr	2.089E-09	9.969E-09	4.711E-08	0.000E+00	1.896E-08	0.000E+00	0.000E+00	7.812E-08
HCHO	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	5.861E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.861E-08
Ni	9.575E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.575E-09
PAH	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** 44-YEAR LIFETIME CANCER RISK BY SOURCE FOR PEAK RECEPTOR # 68 ***

SOURCE	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
1	1.336E-09	1.239E-10	5.793E-09	0.000E+00	1.774E-09	0.000E+00	0.000E+00	9.027E-09
2	1.628E-09	1.510E-10	7.060E-09	0.000E+00	2.162E-09	0.000E+00	0.000E+00	1.100E-08
3	9.425E-09	8.743E-10	4.087E-08	0.000E+00	1.251E-08	0.000E+00	0.000E+00	6.368E-08
4	1.688E-08	1.566E-09	7.321E-08	0.000E+00	2.242E-08	0.000E+00	0.000E+00	1.141E-07
5	1.287E-08	1.194E-09	5.580E-08	0.000E+00	1.709E-08	0.000E+00	0.000E+00	8.695E-08
6	1.004E-08	9.315E-10	4.355E-08	0.000E+00	1.333E-08	0.000E+00	0.000E+00	6.785E-08
7	7.229E-10	6.715E-11	3.139E-09	0.000E+00	9.611E-10	0.000E+00	0.000E+00	4.890E-09
8	4.667E-10	4.336E-11	2.027E-09	0.000E+00	6.206E-10	0.000E+00	0.000E+00	3.158E-09
9	6.432E-10	5.975E-11	2.793E-09	0.000E+00	8.552E-10	0.000E+00	0.000E+00	4.352E-09
10	3.385E-10	3.145E-11	1.470E-09	0.000E+00	4.501E-10	0.000E+00	0.000E+00	2.290E-09
11	3.337E-10	3.100E-11	1.449E-09	0.000E+00	4.437E-10	0.000E+00	0.000E+00	2.258E-09
12	2.564E-10	2.382E-11	1.113E-09	0.000E+00	3.409E-10	0.000E+00	0.000E+00	1.735E-09
13	1.930E-08	1.790E-09	8.369E-08	0.000E+00	2.562E-08	0.000E+00	0.000E+00	1.304E-07
14	2.329E-08	2.161E-09	1.010E-07	0.000E+00	3.093E-08	0.000E+00	0.000E+00	1.574E-07
15	1.336E-07	1.239E-08	5.794E-07	0.000E+00	1.774E-07	0.000E+00	0.000E+00	9.029E-07
16	2.355E-07	2.185E-08	1.021E-06	0.000E+00	3.127E-07	0.000E+00	0.000E+00	1.591E-06
17	1.684E-07	1.562E-08	7.301E-07	0.000E+00	2.236E-07	0.000E+00	0.000E+00	1.138E-06
18	1.372E-07	1.273E-08	5.949E-07	0.000E+00	1.822E-07	0.000E+00	0.000E+00	9.270E-07
19	1.104E-08	8.433E-10	3.934E-08	0.000E+00	1.230E-08	0.000E+00	0.000E+00	6.352E-08
20	1.343E-08	1.026E-09	4.788E-08	0.000E+00	1.497E-08	0.000E+00	0.000E+00	7.730E-08
21	6.371E-08	4.868E-09	2.271E-07	0.000E+00	7.099E-08	0.000E+00	0.000E+00	3.667E-07
22	1.117E-07	8.536E-09	3.982E-07	0.000E+00	1.245E-07	0.000E+00	0.000E+00	6.429E-07
23	7.895E-08	6.033E-09	2.814E-07	0.000E+00	8.798E-08	0.000E+00	0.000E+00	4.544E-07
24	6.099E-08	4.661E-09	2.174E-07	0.000E+00	6.797E-08	0.000E+00	0.000E+00	3.510E-07
25	4.690E-08	3.037E-09	1.426E-07	0.000E+00	4.185E-08	0.000E+00	0.000E+00	2.344E-07
26	6.957E-08	5.316E-09	2.480E-07	0.000E+00	7.753E-08	0.000E+00	0.000E+00	4.004E-07
27	1.689E-07	1.291E-08	6.022E-07	0.000E+00	1.883E-07	0.000E+00	0.000E+00	9.723E-07
28	2.180E-07	1.665E-08	7.769E-07	0.000E+00	2.429E-07	0.000E+00	0.000E+00	1.254E-06
29	1.098E-06	8.388E-08	3.913E-06	0.000E+00	1.223E-06	0.000E+00	0.000E+00	6.318E-06
30	6.726E-08	5.139E-09	2.397E-07	0.000E+00	7.495E-08	0.000E+00	0.000E+00	3.871E-07
31	1.292E-08	9.872E-10	4.605E-08	0.000E+00	1.440E-08	0.000E+00	0.000E+00	7.436E-08
32	3.098E-08	2.368E-09	1.104E-07	0.000E+00	3.453E-08	0.000E+00	0.000E+00	1.783E-07
33	3.837E-08	2.932E-09	1.368E-07	0.000E+00	4.276E-08	0.000E+00	0.000E+00	2.208E-07
34	1.500E-07	1.146E-08	5.346E-07	0.000E+00	1.671E-07	0.000E+00	0.000E+00	8.631E-07
35	1.246E-08	9.521E-10	4.442E-08	0.000E+00	1.388E-08	0.000E+00	0.000E+00	7.171E-08
36	1.936E-08	1.480E-09	6.903E-08	0.000E+00	2.158E-08	0.000E+00	0.000E+00	1.114E-07
37	4.601E-08	3.516E-09	1.640E-07	0.000E+00	5.127E-08	0.000E+00	0.000E+00	2.648E-07
38	5.534E-08	4.229E-09	1.973E-07	0.000E+00	6.167E-08	0.000E+00	0.000E+00	3.185E-07
39	1.899E-07	1.451E-08	6.768E-07	0.000E+00	2.116E-07	0.000E+00	0.000E+00	1.093E-06

40	1.864E-08	1.425E-09	6.645E-08	0.000E+00	2.077E-08	0.000E+00	0.000E+00	1.073E-07
41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
45	2.894E-09	1.573E-12	7.435E-12	0.000E+00	2.220E-12	0.000E+00	0.000E+00	2.906E-09
46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	3.357E-06	2.684E-07	1.253E-05	0.000E+00	3.892E-06	0.000E+00	0.000E+00	2.005E-05

RECEPTOR RISK OF 2.005E-05 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 2.005E-05 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07

44-YEAR LIFETIME RISK OF 2.005E-05 IS LOWER THAN 70-YEAR LIFETIME RISK OF 2.621E-05

*** 44-YEAR LIFETIME CANCER RISK BY POLLUTANT FOR PEAK RECEPTOR # 68 ***

POLLUTANT	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
ACETA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	2.505E-06	2.426E-07	1.146E-05	0.000E+00	3.586E-06	0.000E+00	0.000E+00	1.779E-05
BENZE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	7.570E-08	2.222E-08	1.050E-06	0.000E+00	3.013E-07	0.000E+00	0.000E+00	1.449E-06
Cd	1.171E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.171E-07
Cr	6.433E-07	3.609E-09	1.706E-08	0.000E+00	5.093E-09	0.000E+00	0.000E+00	6.691E-07
HCHO	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	1.032E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.032E-08
Ni	5.477E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.477E-09
PAH	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM	3.357E-06	2.684E-07	1.253E-05	0.000E+00	3.892E-06	0.000E+00	0.000E+00	2.005E-05

RECEPTOR RISK OF 2.005E-05 EXCEEDS SIGNIFICANT RISK LEVEL OF 1.000E-06

RECEPTOR RISK OF 2.005E-05 EXCEEDS IMPACT ZONE RISK LEVEL OF 1.000E-07

44-YEAR LIFETIME RISK OF 2.005E-05 IS LOWER THAN 70-YEAR LIFETIME RISK OF 2.621E-05

*** 44-YEAR LIFETIME DOSE (mg/kg/d) BY POLLUTANT FOR PEAK RECEPTOR # 68 ***

POLLUTANT	INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOTHER MILK	SUM
ACETA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	3.451E-07	2.270E-07	1.073E-05	0.000E+00	3.356E-06	0.000E+00	0.000E+00	1.465E-05
BENZE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	1.434E-08	8.222E-09	3.885E-07	0.000E+00	1.115E-07	0.000E+00	0.000E+00	5.225E-07
Cd	1.267E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.267E-08
Cr	2.089E-09	1.367E-08	6.460E-08	0.000E+00	1.929E-08	0.000E+00	0.000E+00	9.965E-08
HCHO	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	5.861E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.861E-08
Ni	9.575E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.575E-09
PAH	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** MAXIMUM ACUTE HAZARD INDEX BY POLLUTANT ***

POLLUTANT	PEAK CONC (ug/m3)	BACKGR (ug/m3)	TOTAL (ug/m3)	AEL (ug/m3)	HAZARD INDEX	RECEPTOR
ACROL	0.000E+00	0.000E+00	0.000E+00	2.500E+00	0.000E+00	0
Cu	6.181E-03	0.000E+00	6.181E-03	1.000E+01	6.181E-04	30
HCHO	0.000E+00	0.000E+00	0.000E+00	3.700E+02	0.000E+00	0
HCN	4.528E+01	0.000E+00	4.528E+01	3.300E+03	1.372E-02	34

Hg	0.000E+00	0.000E+00	0.000E+00	3.000E+01	0.000E+00	0
Ni	4.160E-03	0.000E+00	4.160E-03	1.000E+00	4.160E-03	30
Se	0.000E+00	0.000E+00	0.000E+00	2.000E+00	0.000E+00	0
XYLEN	0.000E+00	0.000E+00	0.000E+00	4.400E+03	0.000E+00	0

*** RECEPTOR ACUTE HAZARD INDICES BY TOXICOLOGICAL ENDPOINTS ***

FROM ALL SOURCES AND POLLUTANTS

RECEPTOR	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
1	0.000E+00	2.180E-03	7.600E-04	0.000E+00	0.000E+00	0.000E+00	1.130E-04	0.000E+00
2	0.000E+00	1.391E-03	5.664E-04	0.000E+00	0.000E+00	0.000E+00	8.396E-05	0.000E+00
3	0.000E+00	1.369E-03	5.773E-04	0.000E+00	0.000E+00	0.000E+00	8.552E-05	0.000E+00
4	0.000E+00	2.547E-03	9.725E-04	0.000E+00	0.000E+00	0.000E+00	1.437E-04	0.000E+00
5	0.000E+00	2.450E-03	9.408E-04	0.000E+00	0.000E+00	0.000E+00	1.402E-04	0.000E+00
6	0.000E+00	2.311E-03	9.174E-04	0.000E+00	0.000E+00	0.000E+00	1.356E-04	0.000E+00
7	0.000E+00	1.281E-03	7.147E-04	0.000E+00	0.000E+00	0.000E+00	1.053E-04	0.000E+00
8	0.000E+00	1.315E-03	6.960E-04	0.000E+00	0.000E+00	0.000E+00	1.032E-04	0.000E+00
9	0.000E+00	1.347E-03	7.266E-04	0.000E+00	0.000E+00	0.000E+00	1.074E-04	0.000E+00
10	0.000E+00	4.377E-03	1.111E-03	0.000E+00	0.000E+00	0.000E+00	1.657E-04	0.000E+00
11	0.000E+00	2.354E-03	6.318E-04	0.000E+00	0.000E+00	0.000E+00	9.354E-05	0.000E+00
12	0.000E+00	7.945E-03	1.463E-03	0.000E+00	0.000E+00	0.000E+00	2.158E-04	0.000E+00
13	0.000E+00	4.443E-03	2.919E-03	0.000E+00	0.000E+00	0.000E+00	4.305E-04	0.000E+00
14	0.000E+00	4.324E-03	3.007E-03	0.000E+00	0.000E+00	0.000E+00	4.431E-04	0.000E+00
15	0.000E+00	3.888E-03	3.041E-03	0.000E+00	0.000E+00	0.000E+00	4.480E-04	0.000E+00
16	0.000E+00	4.880E-03	3.085E-03	0.000E+00	0.000E+00	0.000E+00	4.542E-04	0.000E+00
17	0.000E+00	4.449E-03	1.046E-03	0.000E+00	0.000E+00	0.000E+00	1.551E-04	0.000E+00
18	0.000E+00	4.634E-03	8.185E-04	0.000E+00	0.000E+00	0.000E+00	1.211E-04	0.000E+00
19	0.000E+00	4.486E-03	9.225E-04	0.000E+00	0.000E+00	0.000E+00	1.366E-04	0.000E+00
20	0.000E+00	5.755E-03	9.491E-04	0.000E+00	0.000E+00	0.000E+00	1.405E-04	0.000E+00
21	0.000E+00	1.023E-02	2.371E-03	0.000E+00	0.000E+00	0.000E+00	3.625E-04	0.000E+00
22	0.000E+00	1.029E-02	2.206E-03	0.000E+00	0.000E+00	0.000E+00	3.364E-04	0.000E+00
23	0.000E+00	1.109E-02	2.558E-03	0.000E+00	0.000E+00	0.000E+00	3.853E-04	0.000E+00
24	0.000E+00	1.138E-02	3.279E-03	0.000E+00	0.000E+00	0.000E+00	4.892E-04	0.000E+00
25	0.000E+00	1.140E-02	3.437E-03	0.000E+00	0.000E+00	0.000E+00	5.124E-04	0.000E+00
26	0.000E+00	1.227E-02	3.011E-03	0.000E+00	0.000E+00	0.000E+00	4.443E-04	0.000E+00
27	0.000E+00	7.433E-03	2.254E-03	0.000E+00	0.000E+00	0.000E+00	3.270E-04	0.000E+00
28	0.000E+00	7.778E-03	2.334E-03	0.000E+00	0.000E+00	0.000E+00	3.466E-04	0.000E+00
29	0.000E+00	8.772E-03	3.650E-03	0.000E+00	0.000E+00	0.000E+00	5.450E-04	0.000E+00
30	0.000E+00	9.334E-03	4.160E-03	0.000E+00	0.000E+00	0.000E+00	6.181E-04	0.000E+00
31	0.000E+00	1.093E-02	3.970E-03	0.000E+00	0.000E+00	0.000E+00	5.882E-04	0.000E+00
32	0.000E+00	1.330E-02	3.279E-03	0.000E+00	0.000E+00	0.000E+00	4.852E-04	0.000E+00
33	0.000E+00	1.342E-02	3.082E-03	0.000E+00	0.000E+00	0.000E+00	4.535E-04	0.000E+00
34	0.000E+00	1.372E-02	3.115E-03	0.000E+00	0.000E+00	0.000E+00	4.593E-04	0.000E+00
35	0.000E+00	1.322E-02	2.151E-03	0.000E+00	0.000E+00	0.000E+00	3.193E-04	0.000E+00
36	0.000E+00	1.268E-02	1.768E-03	0.000E+00	0.000E+00	0.000E+00	2.620E-04	0.000E+00
37	0.000E+00	1.211E-02	1.913E-03	0.000E+00	0.000E+00	0.000E+00	2.817E-04	0.000E+00
38	0.000E+00	1.208E-02	9.811E-04	0.000E+00	0.000E+00	0.000E+00	1.455E-04	0.000E+00
39	0.000E+00	1.356E-02	1.058E-03	0.000E+00	0.000E+00	0.000E+00	1.569E-04	0.000E+00
40	0.000E+00	1.353E-02	1.148E-03	0.000E+00	0.000E+00	0.000E+00	1.705E-04	0.000E+00
41	0.000E+00	1.134E-02	1.475E-03	0.000E+00	0.000E+00	0.000E+00	2.191E-04	0.000E+00
42	0.000E+00	6.072E-03	1.531E-03	0.000E+00	0.000E+00	0.000E+00	2.291E-04	0.000E+00
43	0.000E+00	6.346E-03	8.181E-04	0.000E+00	0.000E+00	0.000E+00	1.334E-04	0.000E+00
44	0.000E+00	6.601E-03	5.759E-04	0.000E+00	0.000E+00	0.000E+00	1.180E-04	0.000E+00
45	0.000E+00	6.261E-03	7.330E-04	0.000E+00	0.000E+00	0.000E+00	1.428E-04	0.000E+00
46	0.000E+00	5.840E-03	6.911E-04	0.000E+00	0.000E+00	0.000E+00	1.413E-04	0.000E+00
47	0.000E+00	4.905E-03	8.481E-04	0.000E+00	0.000E+00	0.000E+00	1.910E-04	0.000E+00
48	0.000E+00	3.968E-03	1.018E-03	0.000E+00	0.000E+00	0.000E+00	1.756E-04	0.000E+00
49	0.000E+00	3.266E-03	8.380E-04	0.000E+00	0.000E+00	0.000E+00	1.769E-04	0.000E+00
50	0.000E+00	2.855E-03	9.931E-04	0.000E+00	0.000E+00	0.000E+00	1.517E-04	0.000E+00
51	0.000E+00	2.934E-03	9.659E-04	0.000E+00	0.000E+00	0.000E+00	1.451E-04	0.000E+00
52	0.000E+00	2.944E-03	8.128E-04	0.000E+00	0.000E+00	0.000E+00	1.218E-04	0.000E+00
53	0.000E+00	3.082E-03	6.367E-04	0.000E+00	0.000E+00	0.000E+00	1.073E-04	0.000E+00
54	0.000E+00	3.139E-03	6.700E-04	0.000E+00	0.000E+00	0.000E+00	1.017E-04	0.000E+00
55	0.000E+00	2.688E-03	8.193E-04	0.000E+00	0.000E+00	0.000E+00	1.220E-04	0.000E+00
56	0.000E+00	2.470E-03	9.431E-04	0.000E+00	0.000E+00	0.000E+00	1.407E-04	0.000E+00
57	0.000E+00	2.237E-03	1.029E-03	0.000E+00	0.000E+00	0.000E+00	1.522E-04	0.000E+00
58	0.000E+00	2.190E-03	1.102E-03	0.000E+00	0.000E+00	0.000E+00	1.624E-04	0.000E+00
59	0.000E+00	2.146E-03	1.216E-03	0.000E+00	0.000E+00	0.000E+00	1.786E-04	0.000E+00
60	0.000E+00	2.110E-03	1.421E-03	0.000E+00	0.000E+00	0.000E+00	2.085E-04	0.000E+00
61	0.000E+00	2.064E-03	2.550E-03	0.000E+00	0.000E+00	0.000E+00	3.820E-04	0.000E+00
62	0.000E+00	2.025E-03	2.788E-03	0.000E+00	0.000E+00	0.000E+00	4.216E-04	0.000E+00
63	0.000E+00	1.990E-03	1.833E-03	0.000E+00	0.000E+00	0.000E+00	2.698E-04	0.000E+00
64	0.000E+00	1.877E-03	1.655E-03	0.000E+00	0.000E+00	0.000E+00	2.447E-04	0.000E+00
65	0.000E+00	1.855E-03	1.366E-03	0.000E+00	0.000E+00	0.000E+00	2.324E-04	0.000E+00
66	0.000E+00	1.833E-03	1.453E-03	0.000E+00	0.000E+00	0.000E+00	2.185E-04	0.000E+00
67	0.000E+00	1.813E-03	1.229E-03	0.000E+00	0.000E+00	0.000E+00	1.872E-04	0.000E+00
68	0.000E+00	1.886E-03	1.124E-03	0.000E+00	0.000E+00	0.000E+00	1.729E-04	0.000E+00
69	0.000E+00	2.107E-03	1.651E-03	0.000E+00	0.000E+00	0.000E+00	2.596E-04	0.000E+00
70	0.000E+00	2.411E-03	1.956E-03	0.000E+00	0.000E+00	0.000E+00	2.934E-04	0.000E+00
71	0.000E+00	2.450E-03	2.785E-03	0.000E+00	0.000E+00	0.000E+00	4.330E-04	0.000E+00
72	0.000E+00	2.484E-03	1.498E-03	0.000E+00	0.000E+00	0.000E+00	2.229E-04	0.000E+00
73	0.000E+00	2.494E-03	1.013E-03	0.000E+00	0.000E+00	0.000E+00	1.517E-04	0.000E+00
74	0.000E+00	2.494E-03	1.271E-03	0.000E+00	0.000E+00	0.000E+00	1.885E-04	0.000E+00
75	0.000E+00	2.793E-03	1.004E-03	0.000E+00	0.000E+00	0.000E+00	1.493E-04	0.000E+00
76	0.000E+00	2.975E-03	1.029E-03	0.000E+00	0.000E+00	0.000E+00	1.536E-04	0.000E+00
77	0.000E+00	3.199E-03	1.135E-03	0.000E+00	0.000E+00	0.000E+00	1.688E-04	0.000E+00
78	0.000E+00	3.222E-03	1.117E-03	0.000E+00	0.000E+00	0.000E+00	1.652E-04	0.000E+00

79	0.000E+00	3.447E-03	1.251E-03	0.000E+00	0.000E+00	0.000E+00	1.848E-04	0.000E+00
80	0.000E+00	3.754E-03	1.292E-03	0.000E+00	0.000E+00	0.000E+00	1.913E-04	0.000E+00
81	0.000E+00	4.111E-03	1.199E-03	0.000E+00	0.000E+00	0.000E+00	1.788E-04	0.000E+00
82	0.000E+00	4.560E-03	1.145E-03	0.000E+00	0.000E+00	0.000E+00	1.723E-04	0.000E+00
83	0.000E+00	5.152E-03	1.273E-03	0.000E+00	0.000E+00	0.000E+00	1.920E-04	0.000E+00
84	0.000E+00	6.065E-03	1.319E-03	0.000E+00	0.000E+00	0.000E+00	1.988E-04	0.000E+00
85	0.000E+00	7.713E-03	1.818E-03	0.000E+00	0.000E+00	0.000E+00	2.742E-04	0.000E+00
86	0.000E+00	1.255E-02	3.823E-03	0.000E+00	0.000E+00	0.000E+00	5.797E-04	0.000E+00
87	0.000E+00	1.179E-02	3.455E-03	0.000E+00	0.000E+00	0.000E+00	5.206E-04	0.000E+00
88	0.000E+00	1.217E-02	3.329E-03	0.000E+00	0.000E+00	0.000E+00	4.982E-04	0.000E+00
89	0.000E+00	9.340E-03	3.212E-03	0.000E+00	0.000E+00	0.000E+00	4.789E-04	0.000E+00
90	0.000E+00	9.700E-03	2.851E-03	0.000E+00	0.000E+00	0.000E+00	4.249E-04	0.000E+00
91	0.000E+00	1.800E-03	1.002E-03	0.000E+00	0.000E+00	0.000E+00	1.491E-04	0.000E+00
92	0.000E+00	1.723E-03	1.040E-03	0.000E+00	0.000E+00	0.000E+00	1.545E-04	0.000E+00
93	0.000E+00	1.656E-03	9.962E-04	0.000E+00	0.000E+00	0.000E+00	1.482E-04	0.000E+00
94	0.000E+00	1.632E-03	1.027E-03	0.000E+00	0.000E+00	0.000E+00	1.511E-04	0.000E+00
95	0.000E+00	1.641E-03	1.094E-03	0.000E+00	0.000E+00	0.000E+00	1.608E-04	0.000E+00
96	0.000E+00	1.649E-03	1.121E-03	0.000E+00	0.000E+00	0.000E+00	1.676E-04	0.000E+00
97	0.000E+00	1.660E-03	1.332E-03	0.000E+00	0.000E+00	0.000E+00	1.978E-04	0.000E+00
98	0.000E+00	1.673E-03	1.518E-03	0.000E+00	0.000E+00	0.000E+00	2.278E-04	0.000E+00
99	0.000E+00	1.685E-03	1.294E-03	0.000E+00	0.000E+00	0.000E+00	1.909E-04	0.000E+00
100	0.000E+00	1.697E-03	1.381E-03	0.000E+00	0.000E+00	0.000E+00	2.065E-04	0.000E+00
101	0.000E+00	1.711E-03	1.272E-03	0.000E+00	0.000E+00	0.000E+00	1.884E-04	0.000E+00
102	0.000E+00	1.731E-03	1.434E-03	0.000E+00	0.000E+00	0.000E+00	2.117E-04	0.000E+00
103	0.000E+00	1.785E-03	1.026E-03	0.000E+00	0.000E+00	0.000E+00	1.528E-04	0.000E+00
104	0.000E+00	1.713E-03	9.742E-04	0.000E+00	0.000E+00	0.000E+00	1.453E-04	0.000E+00
105	0.000E+00	1.663E-03	1.021E-03	0.000E+00	0.000E+00	0.000E+00	1.503E-04	0.000E+00
106	0.000E+00	1.674E-03	1.113E-03	0.000E+00	0.000E+00	0.000E+00	1.636E-04	0.000E+00
107	0.000E+00	1.683E-03	1.241E-03	0.000E+00	0.000E+00	0.000E+00	1.855E-04	0.000E+00
108	0.000E+00	1.686E-03	1.390E-03	0.000E+00	0.000E+00	0.000E+00	2.068E-04	0.000E+00
109	0.000E+00	1.705E-03	1.481E-03	0.000E+00	0.000E+00	0.000E+00	2.191E-04	0.000E+00
110	0.000E+00	1.718E-03	1.444E-03	0.000E+00	0.000E+00	0.000E+00	2.129E-04	0.000E+00
111	0.000E+00	1.730E-03	1.219E-03	0.000E+00	0.000E+00	0.000E+00	1.795E-04	0.000E+00
112	0.000E+00	1.743E-03	1.376E-03	0.000E+00	0.000E+00	0.000E+00	2.037E-04	0.000E+00
113	0.000E+00	1.756E-03	1.578E-03	0.000E+00	0.000E+00	0.000E+00	2.326E-04	0.000E+00
114	0.000E+00	1.779E-03	1.650E-03	0.000E+00	0.000E+00	0.000E+00	2.428E-04	0.000E+00
115	0.000E+00	1.776E-03	9.405E-04	0.000E+00	0.000E+00	0.000E+00	1.409E-04	0.000E+00
116	0.000E+00	1.699E-03	1.008E-03	0.000E+00	0.000E+00	0.000E+00	1.485E-04	0.000E+00
117	0.000E+00	1.708E-03	1.124E-03	0.000E+00	0.000E+00	0.000E+00	1.654E-04	0.000E+00
118	0.000E+00	1.719E-03	1.321E-03	0.000E+00	0.000E+00	0.000E+00	1.977E-04	0.000E+00
119	0.000E+00	1.731E-03	1.543E-03	0.000E+00	0.000E+00	0.000E+00	2.297E-04	0.000E+00
120	0.000E+00	1.741E-03	1.626E-03	0.000E+00	0.000E+00	0.000E+00	2.406E-04	0.000E+00
121	0.000E+00	1.753E-03	1.536E-03	0.000E+00	0.000E+00	0.000E+00	2.266E-04	0.000E+00
122	0.000E+00	1.767E-03	1.357E-03	0.000E+00	0.000E+00	0.000E+00	1.998E-04	0.000E+00
123	0.000E+00	1.779E-03	1.469E-03	0.000E+00	0.000E+00	0.000E+00	2.172E-04	0.000E+00
124	0.000E+00	1.800E-03	1.638E-03	0.000E+00	0.000E+00	0.000E+00	2.413E-04	0.000E+00
125	0.000E+00	1.816E-03	1.710E-03	0.000E+00	0.000E+00	0.000E+00	2.515E-04	0.000E+00
126	0.000E+00	1.830E-03	1.778E-03	0.000E+00	0.000E+00	0.000E+00	2.610E-04	0.000E+00
127	0.000E+00	1.759E-03	9.879E-04	0.000E+00	0.000E+00	0.000E+00	1.459E-04	0.000E+00
128	0.000E+00	1.748E-03	1.129E-03	0.000E+00	0.000E+00	0.000E+00	1.664E-04	0.000E+00
129	0.000E+00	1.761E-03	1.364E-03	0.000E+00	0.000E+00	0.000E+00	2.050E-04	0.000E+00
130	0.000E+00	1.776E-03	1.513E-03	0.000E+00	0.000E+00	0.000E+00	2.264E-04	0.000E+00
131	0.000E+00	1.783E-03	1.372E-03	0.000E+00	0.000E+00	0.000E+00	2.046E-04	0.000E+00
132	0.000E+00	1.800E-03	1.683E-03	0.000E+00	0.000E+00	0.000E+00	2.483E-04	0.000E+00
133	0.000E+00	1.805E-03	1.467E-03	0.000E+00	0.000E+00	0.000E+00	2.161E-04	0.000E+00
134	0.000E+00	1.825E-03	1.496E-03	0.000E+00	0.000E+00	0.000E+00	2.213E-04	0.000E+00
135	0.000E+00	1.842E-03	1.627E-03	0.000E+00	0.000E+00	0.000E+00	2.399E-04	0.000E+00
136	0.000E+00	1.855E-03	2.278E-03	0.000E+00	0.000E+00	0.000E+00	3.484E-04	0.000E+00
137	0.000E+00	1.870E-03	1.890E-03	0.000E+00	0.000E+00	0.000E+00	2.892E-04	0.000E+00
138	0.000E+00	1.885E-03	1.966E-03	0.000E+00	0.000E+00	0.000E+00	3.001E-04	0.000E+00
139	0.000E+00	1.803E-03	1.132E-03	0.000E+00	0.000E+00	0.000E+00	1.710E-04	0.000E+00
140	0.000E+00	1.807E-03	1.360E-03	0.000E+00	0.000E+00	0.000E+00	2.060E-04	0.000E+00
141	0.000E+00	1.817E-03	1.556E-03	0.000E+00	0.000E+00	0.000E+00	2.344E-04	0.000E+00
142	0.000E+00	1.823E-03	1.721E-03	0.000E+00	0.000E+00	0.000E+00	2.893E-04	0.000E+00
143	0.000E+00	1.841E-03	1.594E-03	0.000E+00	0.000E+00	0.000E+00	2.646E-04	0.000E+00
144	0.000E+00	1.857E-03	1.501E-03	0.000E+00	0.000E+00	0.000E+00	2.213E-04	0.000E+00
145	0.000E+00	1.869E-03	1.590E-03	0.000E+00	0.000E+00	0.000E+00	2.352E-04	0.000E+00
146	0.000E+00	1.886E-03	1.679E-03	0.000E+00	0.000E+00	0.000E+00	2.476E-04	0.000E+00
147	0.000E+00	1.900E-03	1.929E-03	0.000E+00	0.000E+00	0.000E+00	2.930E-04	0.000E+00
148	0.000E+00	1.915E-03	2.491E-03	0.000E+00	0.000E+00	0.000E+00	3.815E-04	0.000E+00
149	0.000E+00	1.931E-03	2.558E-03	0.000E+00	0.000E+00	0.000E+00	3.880E-04	0.000E+00
150	0.000E+00	1.943E-03	2.474E-03	0.000E+00	0.000E+00	0.000E+00	3.738E-04	0.000E+00
151	0.000E+00	1.933E-03	1.735E-03	0.000E+00	0.000E+00	0.000E+00	2.559E-04	0.000E+00
152	0.000E+00	1.947E-03	2.422E-03	0.000E+00	0.000E+00	0.000E+00	3.726E-04	0.000E+00
153	0.000E+00	1.964E-03	2.728E-03	0.000E+00	0.000E+00	0.000E+00	4.160E-04	0.000E+00
154	0.000E+00	1.983E-03	1.766E-03	0.000E+00	0.000E+00	0.000E+00	2.591E-04	0.000E+00
155	0.000E+00	1.991E-03	2.640E-03	0.000E+00	0.000E+00	0.000E+00	3.971E-04	0.000E+00
156	0.000E+00	2.016E-03	2.489E-03	0.000E+00	0.000E+00	0.000E+00	3.737E-04	0.000E+00
157	0.000E+00	2.498E-03	1.183E-03	0.000E+00	0.000E+00	0.000E+00	1.754E-04	0.000E+00
158	0.000E+00	2.193E-03	1.040E-03	0.000E+00	0.000E+00	0.000E+00	1.595E-04	0.000E+00
159	0.000E+00	1.944E-03	6.428E-04	0.000E+00	0.000E+00	0.000E+00	9.598E-05	0.000E+00
160	0.000E+00	1.752E-03	8.369E-04	0.000E+00	0.000E+00	0.000E+00	1.274E-04	0.000E+00
161	0.000E+00	1.594E-03	8.497E-04	0.000E+00	0.000E+00	0.000E+00	1.259E-04	0.000E+00
162	0.000E+00	1.472E-03	8.518E-04	0.000E+00	0.000E+00	0.000E+00	1.256E-04	0.000E+00
163	0.000E+00	1.485E-03	9.356E-04	0.000E+00	0.000E+00	0.000E+00	1.376E-04	0.000E+00
164	0.000E+00	1.516E-03	9.526E-04	0.000E+00	0.000E+00	0.000E+00	1.435E-04	0.000E+00
165	0.000E+00	1.540E-03	1.451E-03	0.000E+00	0.000E+00	0.000E+00	2.155E-04	0.000E+00
166	0.000E+00	1.567E-03	1.559E-03	0.000E+00	0.000E+00	0.000E+00	2.301E-04	0.000E+00
167	0.000E+00	1.594E-03	1.312E-03	0.000E+00	0.000E+00	0.000E+00	1.936E-04	0.000E+00
168	0.000E+00	2.198E-03	8.392E-04	0.000E+00	0.000E+00	0.000E+00	1.253E-04	0.000E+00
169	0.000E+00	1.933E-03	7.009E-04	0.000E+00	0.000E+00	0.000E+00	1.048E-04	0.000E+00
170	0.000E+00	1.723E-03	9.123E-04	0.000E+00	0.000E+00	0.000E+00	1.353E-04	0.000E+00
171	0.000E+00	1.570E-03	8.968E-04	0.000E+00	0.000E+00	0.000E+00	1.330E-04	0.000E+00
172	0.000E+00	1.541E-03	9.946E-04	0.000E+00	0.000E+00	0.000E+00	1.462E-04	0.000E+00
173	0.000E+00	1.566E-03	1.004E-03	0.000E+00	0.000E+00	0.000E+00	1.517E-04	0.000E+00
174	0.000E+00	1.594E-03	1.438E-03	0.000E+00	0.000E+00	0.000E+00	2.143E-04	0.000E+00
175	0.000E+00	1.624E-03	1.393E-03	0.000E+00	0.000E+00	0.000E+00	2.064E-04	0.000E+00

176	0.000E+00	1.655E-03	1.468E-03	0.000E+00	0.000E+00	0.000E+00	2.162E-04	0.000E+00
177	0.000E+00	1.686E-03	1.568E-03	0.000E+00	0.000E+00	0.000E+00	2.301E-04	0.000E+00
178	0.000E+00	2.175E-03	1.009E-03	0.000E+00	0.000E+00	0.000E+00	1.497E-04	0.000E+00
179	0.000E+00	1.898E-03	7.610E-04	0.000E+00	0.000E+00	0.000E+00	1.142E-04	0.000E+00
180	0.000E+00	1.695E-03	1.040E-03	0.000E+00	0.000E+00	0.000E+00	1.542E-04	0.000E+00
181	0.000E+00	1.602E-03	1.026E-03	0.000E+00	0.000E+00	0.000E+00	1.509E-04	0.000E+00
182	0.000E+00	1.626E-03	1.305E-03	0.000E+00	0.000E+00	0.000E+00	1.938E-04	0.000E+00
183	0.000E+00	1.656E-03	1.391E-03	0.000E+00	0.000E+00	0.000E+00	2.082E-04	0.000E+00
184	0.000E+00	1.695E-03	1.261E-03	0.000E+00	0.000E+00	0.000E+00	1.866E-04	0.000E+00
185	0.000E+00	1.723E-03	1.657E-03	0.000E+00	0.000E+00	0.000E+00	2.435E-04	0.000E+00
186	0.000E+00	1.758E-03	1.621E-03	0.000E+00	0.000E+00	0.000E+00	2.377E-04	0.000E+00
187	0.000E+00	1.793E-03	1.519E-03	0.000E+00	0.000E+00	0.000E+00	2.231E-04	0.000E+00
188	0.000E+00	2.140E-03	1.306E-03	0.000E+00	0.000E+00	0.000E+00	1.960E-04	0.000E+00
189	0.000E+00	1.863E-03	8.476E-04	0.000E+00	0.000E+00	0.000E+00	1.274E-04	0.000E+00
190	0.000E+00	1.681E-03	1.015E-03	0.000E+00	0.000E+00	0.000E+00	1.495E-04	0.000E+00
191	0.000E+00	1.705E-03	1.414E-03	0.000E+00	0.000E+00	0.000E+00	2.109E-04	0.000E+00
192	0.000E+00	1.735E-03	1.489E-03	0.000E+00	0.000E+00	0.000E+00	2.196E-04	0.000E+00
193	0.000E+00	1.767E-03	1.518E-03	0.000E+00	0.000E+00	0.000E+00	2.241E-04	0.000E+00
194	0.000E+00	1.811E-03	1.762E-03	0.000E+00	0.000E+00	0.000E+00	2.587E-04	0.000E+00
195	0.000E+00	1.843E-03	1.609E-03	0.000E+00	0.000E+00	0.000E+00	2.358E-04	0.000E+00
196	0.000E+00	1.888E-03	1.589E-03	0.000E+00	0.000E+00	0.000E+00	2.331E-04	0.000E+00
197	0.000E+00	1.924E-03	1.409E-03	0.000E+00	0.000E+00	0.000E+00	2.068E-04	0.000E+00
198	0.000E+00	2.105E-03	1.581E-03	0.000E+00	0.000E+00	0.000E+00	2.391E-04	0.000E+00
199	0.000E+00	1.832E-03	9.650E-04	0.000E+00	0.000E+00	0.000E+00	1.432E-04	0.000E+00
200	0.000E+00	1.810E-03	1.490E-03	0.000E+00	0.000E+00	0.000E+00	2.249E-04	0.000E+00
201	0.000E+00	1.878E-03	1.599E-03	0.000E+00	0.000E+00	0.000E+00	2.363E-04	0.000E+00
202	0.000E+00	1.956E-03	2.454E-03	0.000E+00	0.000E+00	0.000E+00	3.690E-04	0.000E+00
203	0.000E+00	2.002E-03	1.548E-03	0.000E+00	0.000E+00	0.000E+00	2.269E-04	0.000E+00
204	0.000E+00	2.035E-03	1.267E-03	0.000E+00	0.000E+00	0.000E+00	1.861E-04	0.000E+00
205	0.000E+00	2.092E-03	1.153E-03	0.000E+00	0.000E+00	0.000E+00	1.696E-04	0.000E+00
206	0.000E+00	2.302E-03	9.875E-04	0.000E+00	0.000E+00	0.000E+00	1.466E-04	0.000E+00
207	0.000E+00	2.573E-03	9.108E-04	0.000E+00	0.000E+00	0.000E+00	1.357E-04	0.000E+00
208	0.000E+00	2.293E-03	4.723E-04	0.000E+00	0.000E+00	0.000E+00	7.117E-05	0.000E+00
209	0.000E+00	2.303E-03	6.047E-04	0.000E+00	0.000E+00	0.000E+00	8.989E-05	0.000E+00
210	0.000E+00	2.303E-03	6.707E-04	0.000E+00	0.000E+00	0.000E+00	9.994E-05	0.000E+00
211	0.000E+00	2.326E-03	5.757E-04	0.000E+00	0.000E+00	0.000E+00	8.492E-05	0.000E+00
212	0.000E+00	2.281E-03	7.587E-04	0.000E+00	0.000E+00	0.000E+00	1.125E-04	0.000E+00
213	0.000E+00	2.111E-03	8.763E-04	0.000E+00	0.000E+00	0.000E+00	1.302E-04	0.000E+00
214	0.000E+00	1.924E-03	6.925E-04	0.000E+00	0.000E+00	0.000E+00	1.033E-04	0.000E+00
215	0.000E+00	1.901E-03	8.901E-04	0.000E+00	0.000E+00	0.000E+00	1.318E-04	0.000E+00
216	0.000E+00	1.865E-03	8.494E-04	0.000E+00	0.000E+00	0.000E+00	1.257E-04	0.000E+00
217	0.000E+00	1.889E-03	9.003E-04	0.000E+00	0.000E+00	0.000E+00	1.332E-04	0.000E+00
218	0.000E+00	1.799E-03	8.028E-04	0.000E+00	0.000E+00	0.000E+00	1.188E-04	0.000E+00
219	0.000E+00	1.615E-03	1.042E-03	0.000E+00	0.000E+00	0.000E+00	1.557E-04	0.000E+00
220	0.000E+00	1.510E-03	6.209E-04	0.000E+00	0.000E+00	0.000E+00	9.281E-05	0.000E+00
221	0.000E+00	1.368E-03	3.711E-04	0.000E+00	0.000E+00	0.000E+00	5.549E-05	0.000E+00
222	0.000E+00	1.241E-03	5.057E-04	0.000E+00	0.000E+00	0.000E+00	7.489E-05	0.000E+00
223	0.000E+00	1.176E-03	5.943E-04	0.000E+00	0.000E+00	0.000E+00	8.761E-05	0.000E+00
224	0.000E+00	1.199E-03	6.428E-04	0.000E+00	0.000E+00	0.000E+00	9.480E-05	0.000E+00
225	0.000E+00	1.223E-03	6.509E-04	0.000E+00	0.000E+00	0.000E+00	9.624E-05	0.000E+00
226	0.000E+00	1.245E-03	7.298E-04	0.000E+00	0.000E+00	0.000E+00	1.087E-04	0.000E+00
227	0.000E+00	2.370E-03	6.895E-04	0.000E+00	0.000E+00	0.000E+00	1.028E-04	0.000E+00
228	0.000E+00	2.500E-03	5.934E-04	0.000E+00	0.000E+00	0.000E+00	8.901E-05	0.000E+00
229	0.000E+00	2.532E-03	6.014E-04	0.000E+00	0.000E+00	0.000E+00	8.939E-05	0.000E+00
230	0.000E+00	2.617E-03	7.185E-04	0.000E+00	0.000E+00	0.000E+00	1.069E-04	0.000E+00
231	0.000E+00	2.470E-03	6.303E-04	0.000E+00	0.000E+00	0.000E+00	9.317E-05	0.000E+00
232	0.000E+00	2.335E-03	8.353E-04	0.000E+00	0.000E+00	0.000E+00	1.240E-04	0.000E+00
233	0.000E+00	2.188E-03	9.126E-04	0.000E+00	0.000E+00	0.000E+00	1.355E-04	0.000E+00
234	0.000E+00	2.102E-03	8.014E-04	0.000E+00	0.000E+00	0.000E+00	1.189E-04	0.000E+00
235	0.000E+00	2.087E-03	8.981E-04	0.000E+00	0.000E+00	0.000E+00	1.328E-04	0.000E+00
236	0.000E+00	2.067E-03	9.407E-04	0.000E+00	0.000E+00	0.000E+00	1.392E-04	0.000E+00
237	0.000E+00	1.960E-03	8.348E-04	0.000E+00	0.000E+00	0.000E+00	1.235E-04	0.000E+00
238	0.000E+00	1.756E-03	1.043E-03	0.000E+00	0.000E+00	0.000E+00	1.564E-04	0.000E+00
239	0.000E+00	1.530E-03	6.144E-04	0.000E+00	0.000E+00	0.000E+00	9.184E-05	0.000E+00
240	0.000E+00	1.401E-03	5.506E-04	0.000E+00	0.000E+00	0.000E+00	8.168E-05	0.000E+00
241	0.000E+00	1.264E-03	5.810E-04	0.000E+00	0.000E+00	0.000E+00	8.581E-05	0.000E+00
242	0.000E+00	1.246E-03	6.873E-04	0.000E+00	0.000E+00	0.000E+00	1.014E-04	0.000E+00
243	0.000E+00	1.277E-03	6.703E-04	0.000E+00	0.000E+00	0.000E+00	9.930E-05	0.000E+00
244	0.000E+00	1.306E-03	8.364E-04	0.000E+00	0.000E+00	0.000E+00	1.245E-04	0.000E+00
245	0.000E+00	1.325E-03	9.413E-04	0.000E+00	0.000E+00	0.000E+00	1.390E-04	0.000E+00
246	0.000E+00	2.633E-03	5.827E-04	0.000E+00	0.000E+00	0.000E+00	8.651E-05	0.000E+00
247	0.000E+00	2.637E-03	7.092E-04	0.000E+00	0.000E+00	0.000E+00	1.055E-04	0.000E+00
248	0.000E+00	2.730E-03	7.127E-04	0.000E+00	0.000E+00	0.000E+00	1.064E-04	0.000E+00
249	0.000E+00	2.862E-03	5.870E-04	0.000E+00	0.000E+00	0.000E+00	8.725E-05	0.000E+00
250	0.000E+00	2.851E-03	7.708E-04	0.000E+00	0.000E+00	0.000E+00	1.145E-04	0.000E+00
251	0.000E+00	2.744E-03	6.789E-04	0.000E+00	0.000E+00	0.000E+00	1.006E-04	0.000E+00
252	0.000E+00	2.462E-03	9.370E-04	0.000E+00	0.000E+00	0.000E+00	1.391E-04	0.000E+00
253	0.000E+00	2.392E-03	8.968E-04	0.000E+00	0.000E+00	0.000E+00	1.332E-04	0.000E+00
254	0.000E+00	2.339E-03	9.773E-04	0.000E+00	0.000E+00	0.000E+00	1.444E-04	0.000E+00
255	0.000E+00	2.333E-03	9.652E-04	0.000E+00	0.000E+00	0.000E+00	1.429E-04	0.000E+00
256	0.000E+00	2.086E-03	8.675E-04	0.000E+00	0.000E+00	0.000E+00	1.284E-04	0.000E+00
257	0.000E+00	1.870E-03	1.020E-03	0.000E+00	0.000E+00	0.000E+00	1.537E-04	0.000E+00
258	0.000E+00	1.618E-03	6.220E-04	0.000E+00	0.000E+00	0.000E+00	9.287E-05	0.000E+00
259	0.000E+00	1.420E-03	6.300E-04	0.000E+00	0.000E+00	0.000E+00	9.332E-05	0.000E+00
260	0.000E+00	1.304E-03	7.051E-04	0.000E+00	0.000E+00	0.000E+00	1.041E-04	0.000E+00
261	0.000E+00	1.336E-03	6.825E-04	0.000E+00	0.000E+00	0.000E+00	1.004E-04	0.000E+00
262	0.000E+00	1.371E-03	9.730E-04	0.000E+00	0.000E+00	0.000E+00	1.448E-04	0.000E+00
263	0.000E+00	1.396E-03	1.035E-03	0.000E+00	0.000E+00	0.000E+00	1.527E-04	0.000E+00
264	0.000E+00	1.427E-03	1.214E-03	0.000E+00	0.000E+00	0.000E+00	1.789E-04	0.000E+00
265	0.000E+00	2.631E-03	7.454E-04	0.000E+00	0.000E+00	0.000E+00	1.112E-04	0.000E+00
266	0.000E+00	2.853E-03	6.773E-04	0.000E+00	0.000E+00	0.000E+00	1.014E-04	0.000E+00
267	0.000E+00	2.903E-03	6.654E-04	0.000E+00	0.000E+00	0.000E+00	9.888E-05	0.000E+00
268	0.000E+00	3.010E-03	7.972E-04	0.000E+00	0.000E+00	0.000E+00	1.186E-04	0.000E+00
269	0.000E+00	3.091E-03	6.590E-04	0.000E+00	0.000E+00	0.000E+00	9.880E-05	0.000E+00
270	0.000E+00	3.119E-03	8.267E-04	0.000E+00	0.000E+00	0.000E+00	1.227E-04	0.000E+00
271	0.000E+00	2.877E-03	7.372E-04	0.000E+00	0.000E+00	0.000E+00	1.096E-04	0.000E+00
272	0.000E+00	2.682E-03	1.065E-03	0.000E+00	0.000E+00	0.000E+00	1.577E-04	0.000E+00

273	0.000E+00	2.675E-03	1.058E-03	0.000E+00	0.000E+00	0.000E+00	1.568E-04	0.000E+00
274	0.000E+00	2.602E-03	9.346E-04	0.000E+00	0.000E+00	0.000E+00	1.382E-04	0.000E+00
275	0.000E+00	2.257E-03	9.005E-04	0.000E+00	0.000E+00	0.000E+00	1.334E-04	0.000E+00
276	0.000E+00	1.907E-03	9.675E-04	0.000E+00	0.000E+00	0.000E+00	1.471E-04	0.000E+00
277	0.000E+00	1.624E-03	6.451E-04	0.000E+00	0.000E+00	0.000E+00	9.592E-05	0.000E+00
278	0.000E+00	1.407E-03	7.682E-04	0.000E+00	0.000E+00	0.000E+00	1.132E-04	0.000E+00
279	0.000E+00	1.407E-03	7.991E-04	0.000E+00	0.000E+00	0.000E+00	1.175E-04	0.000E+00
280	0.000E+00	1.449E-03	1.158E-03	0.000E+00	0.000E+00	0.000E+00	1.722E-04	0.000E+00
281	0.000E+00	1.490E-03	1.129E-03	0.000E+00	0.000E+00	0.000E+00	1.665E-04	0.000E+00
282	0.000E+00	1.526E-03	1.355E-03	0.000E+00	0.000E+00	0.000E+00	1.993E-04	0.000E+00
283	0.000E+00	1.574E-03	1.195E-03	0.000E+00	0.000E+00	0.000E+00	1.762E-04	0.000E+00
284	0.000E+00	2.669E-03	7.626E-04	0.000E+00	0.000E+00	0.000E+00	1.131E-04	0.000E+00
285	0.000E+00	2.891E-03	8.137E-04	0.000E+00	0.000E+00	0.000E+00	1.210E-04	0.000E+00
286	0.000E+00	3.016E-03	8.282E-04	0.000E+00	0.000E+00	0.000E+00	1.235E-04	0.000E+00
287	0.000E+00	3.185E-03	7.646E-04	0.000E+00	0.000E+00	0.000E+00	1.144E-04	0.000E+00
288	0.000E+00	3.416E-03	8.032E-04	0.000E+00	0.000E+00	0.000E+00	1.193E-04	0.000E+00
289	0.000E+00	3.609E-03	8.384E-04	0.000E+00	0.000E+00	0.000E+00	1.250E-04	0.000E+00
290	0.000E+00	3.475E-03	8.843E-04	0.000E+00	0.000E+00	0.000E+00	1.310E-04	0.000E+00
291	0.000E+00	2.961E-03	8.524E-04	0.000E+00	0.000E+00	0.000E+00	1.267E-04	0.000E+00
292	0.000E+00	3.091E-03	1.771E-03	0.000E+00	0.000E+00	0.000E+00	2.721E-04	0.000E+00
293	0.000E+00	2.934E-03	1.096E-03	0.000E+00	0.000E+00	0.000E+00	1.630E-04	0.000E+00
294	0.000E+00	1.644E-03	1.407E-03	0.000E+00	0.000E+00	0.000E+00	2.065E-04	0.000E+00
295	0.000E+00	1.711E-03	1.371E-03	0.000E+00	0.000E+00	0.000E+00	2.016E-04	0.000E+00
296	0.000E+00	1.748E-03	1.160E-03	0.000E+00	0.000E+00	0.000E+00	1.710E-04	0.000E+00
297	0.000E+00	2.504E-03	6.107E-04	0.000E+00	0.000E+00	0.000E+00	8.982E-05	0.000E+00
298	0.000E+00	2.965E-03	6.986E-04	0.000E+00	0.000E+00	0.000E+00	1.031E-04	0.000E+00
299	0.000E+00	3.137E-03	7.799E-04	0.000E+00	0.000E+00	0.000E+00	1.155E-04	0.000E+00
300	0.000E+00	3.340E-03	8.665E-04	0.000E+00	0.000E+00	0.000E+00	1.287E-04	0.000E+00
301	0.000E+00	3.550E-03	9.332E-04	0.000E+00	0.000E+00	0.000E+00	1.389E-04	0.000E+00
302	0.000E+00	3.928E-03	8.875E-04	0.000E+00	0.000E+00	0.000E+00	1.325E-04	0.000E+00
303	0.000E+00	4.241E-03	9.686E-04	0.000E+00	0.000E+00	0.000E+00	1.439E-04	0.000E+00
304	0.000E+00	3.647E-03	9.403E-04	0.000E+00	0.000E+00	0.000E+00	1.393E-04	0.000E+00
305	0.000E+00	3.638E-03	1.097E-03	0.000E+00	0.000E+00	0.000E+00	1.628E-04	0.000E+00
306	0.000E+00	1.869E-03	1.307E-03	0.000E+00	0.000E+00	0.000E+00	1.921E-04	0.000E+00
307	0.000E+00	1.940E-03	1.110E-03	0.000E+00	0.000E+00	0.000E+00	1.633E-04	0.000E+00
308	0.000E+00	1.957E-03	1.003E-03	0.000E+00	0.000E+00	0.000E+00	1.482E-04	0.000E+00
309	0.000E+00	2.704E-03	4.355E-04	0.000E+00	0.000E+00	0.000E+00	6.564E-05	0.000E+00
310	0.000E+00	2.903E-03	5.045E-04	0.000E+00	0.000E+00	0.000E+00	7.380E-05	0.000E+00
311	0.000E+00	3.007E-03	6.076E-04	0.000E+00	0.000E+00	0.000E+00	8.918E-05	0.000E+00
312	0.000E+00	3.454E-03	6.822E-04	0.000E+00	0.000E+00	0.000E+00	1.006E-04	0.000E+00
313	0.000E+00	3.752E-03	7.612E-04	0.000E+00	0.000E+00	0.000E+00	1.128E-04	0.000E+00
314	0.000E+00	4.145E-03	8.986E-04	0.000E+00	0.000E+00	0.000E+00	1.334E-04	0.000E+00
315	0.000E+00	4.735E-03	1.063E-03	0.000E+00	0.000E+00	0.000E+00	1.578E-04	0.000E+00
316	0.000E+00	5.078E-03	1.063E-03	0.000E+00	0.000E+00	0.000E+00	1.583E-04	0.000E+00
317	0.000E+00	4.542E-03	1.121E-03	0.000E+00	0.000E+00	0.000E+00	1.680E-04	0.000E+00
318	0.000E+00	2.194E-03	9.997E-04	0.000E+00	0.000E+00	0.000E+00	1.480E-04	0.000E+00
319	0.000E+00	2.204E-03	8.676E-04	0.000E+00	0.000E+00	0.000E+00	1.289E-04	0.000E+00
320	0.000E+00	2.286E-03	6.322E-04	0.000E+00	0.000E+00	0.000E+00	9.400E-05	0.000E+00
321	0.000E+00	2.578E-03	8.842E-04	0.000E+00	0.000E+00	0.000E+00	1.355E-04	0.000E+00
322	0.000E+00	2.849E-03	8.995E-04	0.000E+00	0.000E+00	0.000E+00	1.380E-04	0.000E+00
323	0.000E+00	3.140E-03	9.142E-04	0.000E+00	0.000E+00	0.000E+00	1.405E-04	0.000E+00
324	0.000E+00	3.293E-03	9.271E-04	0.000E+00	0.000E+00	0.000E+00	1.427E-04	0.000E+00
325	0.000E+00	3.764E-03	9.361E-04	0.000E+00	0.000E+00	0.000E+00	1.443E-04	0.000E+00
326	0.000E+00	4.372E-03	9.379E-04	0.000E+00	0.000E+00	0.000E+00	1.449E-04	0.000E+00
327	0.000E+00	5.022E-03	1.108E-03	0.000E+00	0.000E+00	0.000E+00	1.655E-04	0.000E+00
328	0.000E+00	6.789E-03	1.271E-03	0.000E+00	0.000E+00	0.000E+00	1.898E-04	0.000E+00
329	0.000E+00	6.761E-03	1.431E-03	0.000E+00	0.000E+00	0.000E+00	2.143E-04	0.000E+00
330	0.000E+00	2.665E-03	7.036E-04	0.000E+00	0.000E+00	0.000E+00	1.045E-04	0.000E+00
331	0.000E+00	2.703E-03	6.902E-04	0.000E+00	0.000E+00	0.000E+00	1.027E-04	0.000E+00
332	0.000E+00	2.566E-03	6.988E-04	0.000E+00	0.000E+00	0.000E+00	1.040E-04	0.000E+00
333	0.000E+00	2.510E-03	2.337E-03	0.000E+00	0.000E+00	0.000E+00	3.484E-04	0.000E+00
334	0.000E+00	2.692E-03	2.441E-03	0.000E+00	0.000E+00	0.000E+00	3.635E-04	0.000E+00
335	0.000E+00	2.924E-03	2.550E-03	0.000E+00	0.000E+00	0.000E+00	3.794E-04	0.000E+00
336	0.000E+00	3.247E-03	2.663E-03	0.000E+00	0.000E+00	0.000E+00	3.958E-04	0.000E+00
337	0.000E+00	3.745E-03	2.773E-03	0.000E+00	0.000E+00	0.000E+00	4.118E-04	0.000E+00
338	0.000E+00	4.488E-03	2.865E-03	0.000E+00	0.000E+00	0.000E+00	4.253E-04	0.000E+00
339	0.000E+00	5.296E-03	2.910E-03	0.000E+00	0.000E+00	0.000E+00	4.321E-04	0.000E+00
340	0.000E+00	7.010E-03	2.838E-03	0.000E+00	0.000E+00	0.000E+00	4.222E-04	0.000E+00
341	0.000E+00	3.292E-03	6.837E-04	0.000E+00	0.000E+00	0.000E+00	1.329E-04	0.000E+00
342	0.000E+00	3.417E-03	7.779E-04	0.000E+00	0.000E+00	0.000E+00	1.156E-04	0.000E+00
343	0.000E+00	3.351E-03	7.918E-04	0.000E+00	0.000E+00	0.000E+00	1.173E-04	0.000E+00
344	0.000E+00	3.095E-03	7.337E-04	0.000E+00	0.000E+00	0.000E+00	1.086E-04	0.000E+00
345	0.000E+00	2.880E-03	6.399E-04	0.000E+00	0.000E+00	0.000E+00	9.455E-05	0.000E+00
346	0.000E+00	2.568E-03	2.733E-03	0.000E+00	0.000E+00	0.000E+00	4.063E-04	0.000E+00
347	0.000E+00	2.676E-03	2.756E-03	0.000E+00	0.000E+00	0.000E+00	4.098E-04	0.000E+00
348	0.000E+00	2.601E-03	2.774E-03	0.000E+00	0.000E+00	0.000E+00	4.126E-04	0.000E+00
349	0.000E+00	2.442E-03	2.793E-03	0.000E+00	0.000E+00	0.000E+00	4.155E-04	0.000E+00
350	0.000E+00	3.414E-03	2.822E-03	0.000E+00	0.000E+00	0.000E+00	4.199E-04	0.000E+00
351	0.000E+00	3.920E-03	2.876E-03	0.000E+00	0.000E+00	0.000E+00	4.279E-04	0.000E+00
352	0.000E+00	4.451E-03	2.971E-03	0.000E+00	0.000E+00	0.000E+00	4.420E-04	0.000E+00
353	0.000E+00	6.623E-03	3.103E-03	0.000E+00	0.000E+00	0.000E+00	4.621E-04	0.000E+00
354	0.000E+00	4.753E-03	6.897E-04	0.000E+00	0.000E+00	0.000E+00	1.268E-04	0.000E+00
355	0.000E+00	4.199E-03	5.684E-04	0.000E+00	0.000E+00	0.000E+00	9.291E-05	0.000E+00
356	0.000E+00	3.846E-03	5.101E-04	0.000E+00	0.000E+00	0.000E+00	7.727E-05	0.000E+00
357	0.000E+00	3.492E-03	4.701E-04	0.000E+00	0.000E+00	0.000E+00	6.932E-05	0.000E+00
358	0.000E+00	3.210E-03	4.386E-04	0.000E+00	0.000E+00	0.000E+00	6.464E-05	0.000E+00
359	0.000E+00	2.610E-03	2.144E-03	0.000E+00	0.000E+00	0.000E+00	3.151E-04	0.000E+00
360	0.000E+00	2.834E-03	2.140E-03	0.000E+00	0.000E+00	0.000E+00	3.141E-04	0.000E+00
361	0.000E+00	3.070E-03	2.130E-03	0.000E+00	0.000E+00	0.000E+00	3.122E-04	0.000E+00
362	0.000E+00	3.328E-03	2.109E-03	0.000E+00	0.000E+00	0.000E+00	3.087E-04	0.000E+00
363	0.000E+00	3.631E-03	2.076E-03	0.000E+00	0.000E+00	0.000E+00	3.032E-04	0.000E+00
364	0.000E+00	4.038E-03	2.035E-03	0.000E+00	0.000E+00	0.000E+00	2.967E-04	0.000E+00
365	0.000E+00	4.626E-03	1.994E-03	0.000E+00	0.000E+00	0.000E+00	2.902E-04	0.000E+00
366	0.000E+00	5.512E-03	1.947E-03	0.000E+00	0.000E+00	0.000E+00	2.827E-04	0.000E+00
367	0.000E+00	7.276E-03	1.984E-03	0.000E+00	0.000E+00	0.000E+00	2.877E-04	0.000E+00
368	0.000E+00	9.912E-03	1.660E-03	0.000E+00	0.000E+00	0.000E+00	2.449E-04	0.000E+00
369	0.000E+00	6.459E-03	9.072E-04	0.000E+00	0.000E+00	0.000E+00	1.375E-04	0.000E+00

370	0.000E+00	5.192E-03	5.239E-04	0.000E+00	0.000E+00	0.000E+00	1.056E-04	0.000E+00
371	0.000E+00	4.463E-03	6.192E-04	0.000E+00	0.000E+00	0.000E+00	9.291E-05	0.000E+00
372	0.000E+00	3.983E-03	5.738E-04	0.000E+00	0.000E+00	0.000E+00	8.632E-05	0.000E+00
373	0.000E+00	3.621E-03	5.218E-04	0.000E+00	0.000E+00	0.000E+00	7.794E-05	0.000E+00
374	0.000E+00	3.312E-03	4.794E-04	0.000E+00	0.000E+00	0.000E+00	7.138E-05	0.000E+00
375	0.000E+00	2.054E-03	6.180E-04	0.000E+00	0.000E+00	0.000E+00	9.153E-05	0.000E+00
376	0.000E+00	2.059E-03	6.646E-04	0.000E+00	0.000E+00	0.000E+00	9.829E-05	0.000E+00
377	0.000E+00	2.030E-03	6.929E-04	0.000E+00	0.000E+00	0.000E+00	1.024E-04	0.000E+00
378	0.000E+00	2.403E-03	6.944E-04	0.000E+00	0.000E+00	0.000E+00	1.025E-04	0.000E+00
379	0.000E+00	3.289E-03	6.514E-04	0.000E+00	0.000E+00	0.000E+00	9.604E-05	0.000E+00
380	0.000E+00	4.001E-03	6.208E-04	0.000E+00	0.000E+00	0.000E+00	9.253E-05	0.000E+00
381	0.000E+00	4.616E-03	8.552E-04	0.000E+00	0.000E+00	0.000E+00	1.258E-04	0.000E+00
382	0.000E+00	5.528E-03	9.876E-04	0.000E+00	0.000E+00	0.000E+00	1.447E-04	0.000E+00
383	0.000E+00	7.073E-03	2.592E-03	0.000E+00	0.000E+00	0.000E+00	3.808E-04	0.000E+00
384	0.000E+00	7.701E-03	3.130E-03	0.000E+00	0.000E+00	0.000E+00	4.618E-04	0.000E+00
385	0.000E+00	9.775E-03	2.699E-03	0.000E+00	0.000E+00	0.000E+00	3.989E-04	0.000E+00
386	0.000E+00	9.513E-03	1.924E-03	0.000E+00	0.000E+00	0.000E+00	2.835E-04	0.000E+00
387	0.000E+00	9.567E-03	1.193E-03	0.000E+00	0.000E+00	0.000E+00	1.761E-04	0.000E+00
388	0.000E+00	6.531E-03	1.070E-03	0.000E+00	0.000E+00	0.000E+00	1.593E-04	0.000E+00
389	0.000E+00	5.186E-03	1.141E-03	0.000E+00	0.000E+00	0.000E+00	1.700E-04	0.000E+00
390	0.000E+00	4.441E-03	3.942E-04	0.000E+00	0.000E+00	0.000E+00	7.731E-05	0.000E+00
391	0.000E+00	3.861E-03	3.912E-04	0.000E+00	0.000E+00	0.000E+00	7.228E-05	0.000E+00
392	0.000E+00	3.481E-03	4.322E-04	0.000E+00	0.000E+00	0.000E+00	6.782E-05	0.000E+00
393	0.000E+00	3.284E-03	4.517E-04	0.000E+00	0.000E+00	0.000E+00	6.675E-05	0.000E+00
394	0.000E+00	2.515E-03	5.682E-04	0.000E+00	0.000E+00	0.000E+00	8.386E-05	0.000E+00
395	0.000E+00	2.562E-03	5.188E-04	0.000E+00	0.000E+00	0.000E+00	7.651E-05	0.000E+00
396	0.000E+00	2.917E-03	4.700E-04	0.000E+00	0.000E+00	0.000E+00	6.975E-05	0.000E+00
397	0.000E+00	3.147E-03	5.362E-04	0.000E+00	0.000E+00	0.000E+00	7.944E-05	0.000E+00
398	0.000E+00	2.780E-03	5.752E-04	0.000E+00	0.000E+00	0.000E+00	8.475E-05	0.000E+00
399	0.000E+00	3.657E-03	8.472E-04	0.000E+00	0.000E+00	0.000E+00	1.246E-04	0.000E+00
400	0.000E+00	3.867E-03	7.544E-04	0.000E+00	0.000E+00	0.000E+00	1.108E-04	0.000E+00
401	0.000E+00	3.889E-03	1.186E-03	0.000E+00	0.000E+00	0.000E+00	1.762E-04	0.000E+00
402	0.000E+00	3.613E-03	2.555E-03	0.000E+00	0.000E+00	0.000E+00	3.786E-04	0.000E+00
403	0.000E+00	3.641E-03	3.111E-03	0.000E+00	0.000E+00	0.000E+00	4.585E-04	0.000E+00
404	0.000E+00	5.263E-03	2.391E-03	0.000E+00	0.000E+00	0.000E+00	3.539E-04	0.000E+00
405	0.000E+00	5.614E-03	1.662E-03	0.000E+00	0.000E+00	0.000E+00	2.451E-04	0.000E+00
406	0.000E+00	5.382E-03	9.818E-04	0.000E+00	0.000E+00	0.000E+00	1.452E-04	0.000E+00
407	0.000E+00	5.212E-03	9.252E-04	0.000E+00	0.000E+00	0.000E+00	1.367E-04	0.000E+00
408	0.000E+00	5.155E-03	9.380E-04	0.000E+00	0.000E+00	0.000E+00	1.394E-04	0.000E+00
409	0.000E+00	4.382E-03	9.923E-04	0.000E+00	0.000E+00	0.000E+00	1.476E-04	0.000E+00
410	0.000E+00	3.851E-03	3.493E-04	0.000E+00	0.000E+00	0.000E+00	6.433E-05	0.000E+00
411	0.000E+00	3.537E-03	3.560E-04	0.000E+00	0.000E+00	0.000E+00	6.273E-05	0.000E+00
412	0.000E+00	3.181E-03	3.421E-04	0.000E+00	0.000E+00	0.000E+00	5.948E-05	0.000E+00
413	0.000E+00	2.922E-03	7.708E-04	0.000E+00	0.000E+00	0.000E+00	1.134E-04	0.000E+00
414	0.000E+00	2.404E-03	5.070E-04	0.000E+00	0.000E+00	0.000E+00	7.481E-05	0.000E+00
415	0.000E+00	2.017E-03	5.547E-04	0.000E+00	0.000E+00	0.000E+00	8.508E-05	0.000E+00
416	0.000E+00	2.806E-03	6.086E-04	0.000E+00	0.000E+00	0.000E+00	8.962E-05	0.000E+00
417	0.000E+00	2.271E-03	4.364E-04	0.000E+00	0.000E+00	0.000E+00	6.827E-05	0.000E+00
418	0.000E+00	1.990E-03	6.864E-04	0.000E+00	0.000E+00	0.000E+00	1.023E-04	0.000E+00
419	0.000E+00	2.782E-03	5.169E-04	0.000E+00	0.000E+00	0.000E+00	7.788E-05	0.000E+00
420	0.000E+00	2.253E-03	1.246E-03	0.000E+00	0.000E+00	0.000E+00	1.869E-04	0.000E+00
421	0.000E+00	2.100E-03	1.946E-03	0.000E+00	0.000E+00	0.000E+00	2.878E-04	0.000E+00
422	0.000E+00	2.959E-03	2.067E-03	0.000E+00	0.000E+00	0.000E+00	3.069E-04	0.000E+00
423	0.000E+00	2.512E-03	1.956E-03	0.000E+00	0.000E+00	0.000E+00	2.886E-04	0.000E+00
424	0.000E+00	2.257E-03	1.897E-03	0.000E+00	0.000E+00	0.000E+00	2.817E-04	0.000E+00
425	0.000E+00	3.041E-03	2.812E-03	0.000E+00	0.000E+00	0.000E+00	4.144E-04	0.000E+00
426	0.000E+00	2.645E-03	2.713E-03	0.000E+00	0.000E+00	0.000E+00	3.991E-04	0.000E+00
427	0.000E+00	2.346E-03	2.566E-03	0.000E+00	0.000E+00	0.000E+00	3.795E-04	0.000E+00
428	0.000E+00	3.047E-03	3.026E-03	0.000E+00	0.000E+00	0.000E+00	4.462E-04	0.000E+00
429	0.000E+00	2.653E-03	2.889E-03	0.000E+00	0.000E+00	0.000E+00	4.263E-04	0.000E+00
430	0.000E+00	2.403E-03	2.739E-03	0.000E+00	0.000E+00	0.000E+00	4.044E-04	0.000E+00
431	0.000E+00	3.363E-03	2.232E-03	0.000E+00	0.000E+00	0.000E+00	3.303E-04	0.000E+00
432	0.000E+00	2.586E-03	2.114E-03	0.000E+00	0.000E+00	0.000E+00	3.128E-04	0.000E+00
433	0.000E+00	2.335E-03	1.984E-03	0.000E+00	0.000E+00	0.000E+00	2.935E-04	0.000E+00
434	0.000E+00	4.308E-03	1.383E-03	0.000E+00	0.000E+00	0.000E+00	2.048E-04	0.000E+00
435	0.000E+00	3.413E-03	1.153E-03	0.000E+00	0.000E+00	0.000E+00	1.717E-04	0.000E+00
436	0.000E+00	2.718E-03	9.749E-04	0.000E+00	0.000E+00	0.000E+00	1.460E-04	0.000E+00
437	0.000E+00	4.395E-03	9.313E-04	0.000E+00	0.000E+00	0.000E+00	1.379E-04	0.000E+00
438	0.000E+00	3.550E-03	7.953E-04	0.000E+00	0.000E+00	0.000E+00	1.182E-04	0.000E+00
439	0.000E+00	3.137E-03	6.464E-04	0.000E+00	0.000E+00	0.000E+00	9.646E-05	0.000E+00
440	0.000E+00	4.117E-03	8.338E-04	0.000E+00	0.000E+00	0.000E+00	1.234E-04	0.000E+00
441	0.000E+00	3.691E-03	9.570E-04	0.000E+00	0.000E+00	0.000E+00	1.415E-04	0.000E+00
442	0.000E+00	3.093E-03	9.422E-04	0.000E+00	0.000E+00	0.000E+00	1.394E-04	0.000E+00
443	0.000E+00	4.181E-03	7.883E-04	0.000E+00	0.000E+00	0.000E+00	1.166E-04	0.000E+00
444	0.000E+00	3.538E-03	7.651E-04	0.000E+00	0.000E+00	0.000E+00	1.131E-04	0.000E+00
445	0.000E+00	3.176E-03	6.516E-04	0.000E+00	0.000E+00	0.000E+00	9.664E-05	0.000E+00
446	0.000E+00	3.983E-03	6.781E-04	0.000E+00	0.000E+00	0.000E+00	1.012E-04	0.000E+00
447	0.000E+00	3.489E-03	7.011E-04	0.000E+00	0.000E+00	0.000E+00	1.039E-04	0.000E+00
448	0.000E+00	3.135E-03	6.501E-04	0.000E+00	0.000E+00	0.000E+00	9.635E-05	0.000E+00
449	0.000E+00	3.881E-03	8.548E-04	0.000E+00	0.000E+00	0.000E+00	1.272E-04	0.000E+00
450	0.000E+00	3.456E-03	7.192E-04	0.000E+00	0.000E+00	0.000E+00	1.068E-04	0.000E+00
451	0.000E+00	3.167E-03	5.963E-04	0.000E+00	0.000E+00	0.000E+00	8.865E-05	0.000E+00

RECEPTOR # 34 HAS MAXIMUM ACUTE HAZARD INDEX OF 1.372E-02

*** ACUTE HAZARD INDEX BY POLLUTANT FOR PEAK RECEPTOR # 34 ***

POLLUTANT	CONC (ug/m3)	BACKGR (ug/m3)	AEL (ug/m3)	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
ACROL	0.000E+00	0.000E+00	2.500E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cu	4.593E-03	0.000E+00	1.000E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.593E-04	0.000E+00
HCHO	0.000E+00	0.000E+00	3.700E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	4.528E+01	0.000E+00	3.300E+03	0.000E+00	1.372E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Hg	0.000E+00	0.000E+00	3.000E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	3.115E-03	0.000E+00	1.000E+00	0.000E+00	0.000E+00	3.115E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	2.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	0.000E+00	0.000E+00	4.400E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
			SUM =	0.000E+00	1.372E-02	3.115E-03	0.000E+00	0.000E+00	0.000E+00	4.593E-04	0.000E+00

*** ACUTE HAZARD INDEX BY SOURCE FOR PEAK RECEPTOR # 34 ***

POLLUTANT ACROL AEL (ug/m3) = 2.500E+00 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Cu AEL (ug/m3) = 1.000E+01 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.613E-09	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.603E-07	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.647E-07	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.107E-07	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.705E-07	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.229E-06	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.382E-07	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.844E-04	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.034E-04	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.425E-04	0.000E+00

SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.253E-08	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.245E-06	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.286E-06	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.562E-07	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.472E-06	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.025E-09	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.667E-06	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.707E-06	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.088E-06	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.796E-06	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.566E-10	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.032E-07	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.011E-06	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.468E-06	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.783E-10	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.962E-07	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.922E-06	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.792E-06	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.140E-10	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.299E-08	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.231E-07	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.692E-07	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.593E-04	0.000E+00

POLLUTANT HCHO AEL (ug/m3) = 3.700E+02 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT HCN AEL (ug/m3) = 3.300E+03 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE

SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	1.047E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	3.248E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	1.372E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Hg AEL (ug/m3) = 3.000E+01 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Ni AEL (ug/m3) = 1.000E+00 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	9.500E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	9.464E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	9.626E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	4.027E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	6.201E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	2.919E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	2.335E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	1.273E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	7.139E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	9.836E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	1.556E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	1.549E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	1.578E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	6.601E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	1.016E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	6.444E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	8.484E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	8.613E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	3.460E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	5.713E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	2.461E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	7.120E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	6.975E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	1.013E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	2.158E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	6.245E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	6.117E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	8.883E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	3.628E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	1.050E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	1.028E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	1.493E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	3.115E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Se AEL (ug/m3) = 2.000E+00 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT XYLEN AEL (ug/m3) = 4.400E+03 BACKGR. (ug/m3) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	EYE
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

*** MAXIMUM CHRONIC EXPOSURE BY POLLUTANT FROM ALL SOURCES ***

POL.	PATHWAY DOSE (mg/kg-d) INHALE	DERMAL	SOIL	WATER	PLANTS	ANIMAL	MOT MILK	NON-INH DOSE SUM	ACCEPTABL ORAL DOSE	INH CONC (ug/m3)	BACKGR (ug/m3)	AEL (ug/m3)	HAZARD INDEX	REC.
ACETA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.00E+00	0.00E+00	0
ACROL	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-02	0.00E+00	0
As	3.45E-07	1.66E-07	7.82E-06	0.00E+00	3.26E-06	0.00E+00	0.00E+00	1.12E-05	1.00E-03	1.21E-03	0.00E+00	5.00E-01	1.37E-02	68
BENZE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.10E+01	0.00E+00	0
Be	1.69E-08	6.79E-09	3.21E-07	0.00E+00	1.25E-07	0.00E+00	0.00E+00	4.53E-07	5.00E-03	5.93E-05	0.00E+00	4.80E-03	1.24E-02	42
Cd	1.27E-08	1.20E-08	2.84E-07	0.00E+00	3.05E-07	0.00E+00	0.00E+00	6.01E-07	1.00E-03	4.44E-05	0.00E+00	3.50E+00	6.14E-04	68
Cr	2.09E-09	9.95E-09	4.70E-08	0.00E+00	1.89E-08	0.00E+00	0.00E+00	7.59E-08	5.00E-03	7.32E-06	0.00E+00	2.00E-03	3.68E-03	69
Cu	2.90E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-04	0.00E+00	2.40E+00	4.23E-05	68

HCHO	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E+00	0.00E+00	0
HCN	9.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.31E+00	0.00E+00	7.00E+01	4.73E-02	87
Pb	5.86E-08	2.77E-08	1.31E-06	0.00E+00	5.50E-07	0.00E+00	0.00E+00	1.89E-06	4.30E-04	2.05E-04	0.00E+00	1.50E+00	4.53E-03	68
Mn	3.27E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	4.00E-01	2.86E-03	69
Hg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-04	0.00E+00	0.00E+00	3.00E-01	0.00E+00	0
Ni	9.60E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-05	0.00E+00	2.40E-01	1.40E-04	69
NAPTH	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.00E-03	0.00E+00	0.00E+00	1.40E+01	0.00E+00	0
Se	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.00E-01	0.00E+00	0
TOL	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E+02	0.00E+00	0
XYLEN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+02	0.00E+00	0
Zn	4.43E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-04	0.00E+00	3.50E+01	4.43E-06	69

*** RECEPTOR CHRONIC HAZARD INDICES BY TOXICOLOGICAL ENDPOINTS ***
FROM ALL SOURCES AND POLLUTANTS

RECEPTOR	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
1	1.104E-03	2.813E-03	2.919E-04	5.507E-04	2.221E-04	2.834E-04	1.373E-03	8.205E-04
2	1.669E-03	3.498E-03	4.373E-04	8.272E-04	3.344E-04	4.246E-04	1.929E-03	1.244E-03
3	1.657E-03	3.474E-03	4.339E-04	8.211E-04	3.321E-04	4.213E-04	1.907E-03	1.236E-03
4	2.145E-03	4.819E-03	5.641E-04	1.066E-03	4.304E-04	5.477E-04	2.554E-03	1.597E-03
5	2.165E-03	4.797E-03	5.695E-04	1.076E-03	4.344E-04	5.529E-04	2.580E-03	1.611E-03
6	1.966E-03	4.345E-03	5.181E-04	9.780E-04	3.946E-04	5.030E-04	2.370E-03	1.462E-03
7	1.739E-03	3.455E-03	4.568E-04	8.639E-04	3.494E-04	4.434E-04	2.076E-03	1.295E-03
8	1.748E-03	3.469E-03	4.626E-04	8.724E-04	3.518E-04	4.492E-04	2.206E-03	1.298E-03
9	1.815E-03	3.597E-03	4.824E-04	9.082E-04	3.657E-04	4.684E-04	2.350E-03	1.346E-03
10	2.295E-03	7.814E-03	6.023E-04	1.141E-03	4.619E-04	5.847E-04	2.762E-03	1.710E-03
11	9.407E-04	2.218E-03	2.484E-04	4.685E-04	1.889E-04	2.412E-04	1.152E-03	6.992E-04
12	4.083E-03	1.200E-02	1.087E-03	2.042E-03	8.197E-04	1.055E-03	5.192E-03	3.027E-03
13	1.756E-03	7.824E-03	4.785E-04	8.922E-04	3.558E-04	4.649E-04	2.652E-03	1.291E-03
14	1.771E-03	8.030E-03	4.825E-04	8.996E-04	3.588E-04	4.687E-04	2.675E-03	1.301E-03
15	1.724E-03	7.672E-03	4.697E-04	8.762E-04	3.497E-04	4.563E-04	2.615E-03	1.267E-03
16	1.961E-03	1.000E-02	5.339E-04	9.960E-04	3.975E-04	5.187E-04	2.953E-03	1.442E-03
17	1.040E-03	2.366E-03	2.755E-04	5.189E-04	2.089E-04	2.675E-04	1.294E-03	7.724E-04
18	1.566E-03	4.346E-03	4.186E-04	7.855E-04	3.151E-04	4.066E-04	2.060E-03	1.159E-03
19	1.550E-03	4.980E-03	4.180E-04	7.830E-04	3.138E-04	4.059E-04	2.216E-03	1.144E-03
20	2.181E-03	8.250E-03	5.891E-04	1.101E-03	4.395E-04	5.723E-04	3.053E-03	1.608E-03
21	1.578E-03	1.527E-02	4.270E-04	8.033E-04	3.239E-04	4.146E-04	2.499E-03	1.163E-03
22	1.467E-03	1.451E-02	4.001E-04	7.518E-04	3.030E-04	3.885E-04	2.479E-03	1.078E-03
23	1.462E-03	1.434E-02	3.996E-04	7.505E-04	3.024E-04	3.879E-04	2.512E-03	1.074E-03
24	1.454E-03	1.438E-02	3.973E-04	7.456E-04	3.001E-04	3.858E-04	2.471E-03	1.068E-03
25	1.467E-03	1.545E-02	4.000E-04	7.505E-04	3.019E-04	3.885E-04	2.430E-03	1.078E-03
26	1.563E-03	1.781E-02	4.206E-04	7.894E-04	3.169E-04	4.085E-04	2.234E-03	1.155E-03
27	1.603E-03	1.125E-02	4.274E-04	8.045E-04	3.239E-04	4.150E-04	2.146E-03	1.188E-03
28	1.713E-03	9.697E-03	4.554E-04	8.580E-04	3.458E-04	4.422E-04	2.253E-03	1.270E-03
29	2.173E-03	9.119E-03	5.822E-04	1.092E-03	4.382E-04	5.654E-04	2.949E-03	1.607E-03
30	2.302E-03	9.162E-03	6.196E-04	1.160E-03	4.644E-04	6.018E-04	3.188E-03	1.700E-03
31	2.409E-03	9.707E-03	6.509E-04	1.216E-03	4.859E-04	6.323E-04	3.403E-03	1.776E-03
32	2.415E-03	1.116E-02	6.545E-04	1.222E-03	4.878E-04	6.359E-04	3.500E-03	1.778E-03
33	2.674E-03	3.329E-02	7.284E-04	1.357E-03	5.404E-04	7.077E-04	3.966E-03	1.965E-03
34	2.953E-03	3.558E-02	8.057E-04	1.500E-03	5.974E-04	7.828E-04	4.444E-03	2.169E-03
35	3.149E-03	3.549E-02	8.605E-04	1.601E-03	6.368E-04	8.361E-04	4.757E-03	2.312E-03
36	3.289E-03	3.417E-02	8.984E-04	1.670E-03	6.633E-04	8.730E-04	4.864E-03	2.416E-03
37	3.303E-03	3.178E-02	9.006E-04	1.674E-03	6.646E-04	8.751E-04	4.790E-03	2.427E-03
38	3.211E-03	1.846E-02	8.709E-04	1.622E-03	6.454E-04	8.461E-04	4.517E-03	2.364E-03
39	3.916E-03	3.278E-02	1.066E-03	1.982E-03	7.881E-04	1.035E-03	5.632E-03	2.880E-03
40	4.960E-03	4.089E-02	1.354E-03	2.516E-03	9.988E-04	1.316E-03	7.275E-03	3.643E-03
41	6.739E-03	3.892E-02	1.856E-03	3.455E-03	1.373E-03	1.803E-03	1.080E-02	4.934E-03
42	1.022E-02	3.193E-02	2.816E-03	5.254E-03	2.100E-03	2.735E-03	1.753E-02	7.481E-03
43	8.699E-03	2.383E-02	2.350E-03	4.422E-03	1.783E-03	2.282E-03	1.356E-02	6.415E-03
44	8.037E-03	1.805E-02	2.077E-03	3.964E-03	1.616E-03	2.015E-03	8.799E-03	6.020E-03
45	7.786E-03	1.479E-02	1.967E-03	3.786E-03	1.556E-03	1.908E-03	7.053E-03	5.876E-03
46	4.937E-03	9.930E-03	1.261E-03	2.415E-03	9.885E-04	1.223E-03	4.855E-03	3.713E-03
47	7.203E-03	1.286E-02	1.838E-03	3.545E-03	1.464E-03	1.782E-03	8.041E-03	5.419E-03
48	9.476E-03	1.586E-02	2.370E-03	4.586E-03	1.895E-03	2.298E-03	8.042E-03	7.175E-03
49	1.120E-02	1.806E-02	2.796E-03	5.417E-03	2.241E-03	2.711E-03	9.477E-03	8.481E-03
50	1.197E-02	1.878E-02	2.998E-03	5.804E-03	2.400E-03	2.907E-03	1.050E-02	9.060E-03
51	6.310E-03	1.152E-02	1.615E-03	3.105E-03	1.275E-03	1.566E-03	6.777E-03	4.742E-03
52	4.194E-03	8.344E-03	1.084E-03	2.071E-03	8.462E-04	1.051E-03	4.721E-03	3.141E-03
53	3.047E-03	6.418E-03	7.922E-04	1.507E-03	6.132E-04	7.688E-04	3.476E-03	2.278E-03
54	2.431E-03	5.260E-03	6.499E-04	1.235E-03	5.036E-04	6.306E-04	3.842E-03	1.800E-03
55	2.635E-03	5.647E-03	6.949E-04	1.322E-03	5.379E-04	6.744E-04	3.559E-03	1.960E-03
56	2.860E-03	6.017E-03	7.543E-04	1.437E-03	5.854E-04	7.320E-04	3.934E-03	2.127E-03
57	3.039E-03	6.211E-03	7.932E-04	1.506E-03	6.111E-04	7.699E-04	3.536E-03	2.268E-03
58	3.803E-03	7.457E-03	9.942E-04	1.888E-03	7.669E-04	9.650E-04	4.544E-03	2.838E-03
59	4.679E-03	8.830E-03	1.250E-03	2.374E-03	9.673E-04	1.213E-03	7.303E-03	3.465E-03
60	5.597E-03	1.013E-02	1.500E-03	2.842E-03	1.155E-03	1.455E-03	8.786E-03	4.141E-03
61	6.725E-03	1.158E-02	1.801E-03	3.406E-03	1.381E-03	1.748E-03	1.025E-02	4.976E-03
62	7.910E-03	1.315E-02	2.121E-03	4.006E-03	1.622E-03	2.059E-03	1.201E-02	5.850E-03
63	9.186E-03	1.493E-02	2.479E-03	4.676E-03	1.892E-03	2.406E-03	1.469E-02	6.777E-03
64	8.458E-03	1.378E-02	2.282E-03	4.309E-03	1.745E-03	2.215E-03	1.358E-02	6.241E-03
65	9.971E-03	1.584E-02	2.668E-03	5.040E-03	2.041E-03	2.589E-03	1.482E-02	7.380E-03
66	1.244E-02	1.907E-02	3.278E-03	6.228E-03	2.535E-03	3.181E-03	1.677E-02	9.255E-03
67	1.698E-02	2.490E-02	4.377E-03	8.380E-03	3.433E-03	4.246E-03	1.927E-02	1.273E-02
68	1.819E-02	2.688E-02	4.665E-03	8.949E-03	3.670E-03	4.526E-03	1.958E-02	1.366E-02
69	1.817E-02	2.746E-02	4.663E-03	8.949E-03	3.675E-03	4.523E-03	2.013E-02	1.364E-02
70	1.773E-02	2.735E-02	4.547E-03	8.739E-03	3.595E-03	4.410E-03	2.003E-02	1.331E-02
71	1.148E-02	1.899E-02	2.987E-03	5.709E-03	2.336E-03	2.898E-03	1.434E-02	8.582E-03
72	8.373E-03	1.441E-02	2.204E-03	4.199E-03	1.714E-03	2.139E-03	1.159E-02	6.232E-03

73	6.389E-03	1.134E-02	1.675E-03	3.182E-03	1.293E-03	1.625E-03	7.912E-03	4.762E-03
74	5.260E-03	9.524E-03	1.406E-03	2.668E-03	1.086E-03	1.365E-03	8.225E-03	3.894E-03
75	4.880E-03	9.137E-03	1.286E-03	2.446E-03	9.943E-04	1.248E-03	6.472E-03	3.630E-03
76	4.409E-03	8.749E-03	1.150E-03	2.186E-03	8.875E-04	1.117E-03	5.130E-03	3.291E-03
77	3.805E-03	8.082E-03	9.921E-04	1.885E-03	7.658E-04	9.629E-04	4.404E-03	2.841E-03
78	3.230E-03	7.345E-03	8.552E-04	1.629E-03	6.640E-04	8.298E-04	4.637E-03	2.400E-03
79	3.697E-03	8.389E-03	9.858E-04	1.881E-03	7.700E-04	9.564E-04	5.978E-03	2.739E-03
80	4.154E-03	9.525E-03	1.076E-03	2.054E-03	8.377E-04	1.044E-03	4.708E-03	3.109E-03
81	4.869E-03	1.121E-02	1.252E-03	2.395E-03	9.793E-04	1.215E-03	5.183E-03	3.653E-03
82	5.727E-03	1.339E-02	1.462E-03	2.803E-03	1.148E-03	1.418E-03	5.664E-03	4.308E-03
83	6.305E-03	1.573E-02	1.606E-03	3.081E-03	1.263E-03	1.558E-03	6.130E-03	4.745E-03
84	6.837E-03	1.925E-02	1.740E-03	3.339E-03	1.369E-03	1.688E-03	6.582E-03	5.148E-03
85	7.267E-03	2.651E-02	1.847E-03	3.547E-03	1.455E-03	1.791E-03	6.945E-03	5.474E-03
86	7.042E-03	4.954E-02	1.795E-03	3.444E-03	1.412E-03	1.741E-03	6.936E-03	5.299E-03
87	3.713E-03	5.163E-02	9.710E-04	1.843E-03	7.480E-04	9.425E-04	4.423E-03	2.769E-03
88	2.464E-03	3.259E-02	6.534E-04	1.234E-03	4.991E-04	6.343E-04	3.275E-03	1.829E-03
89	1.787E-03	1.317E-02	4.782E-04	9.013E-04	3.637E-04	4.642E-04	2.556E-03	1.322E-03
90	1.674E-03	1.478E-02	4.503E-04	8.481E-04	3.421E-04	4.372E-04	2.515E-03	1.236E-03
91	8.147E-03	1.397E-02	2.109E-03	4.012E-03	1.631E-03	2.047E-03	8.708E-03	6.099E-03
92	7.888E-03	1.349E-02	2.045E-03	3.888E-03	1.580E-03	1.984E-03	8.524E-03	5.902E-03
93	7.586E-03	1.292E-02	1.971E-03	3.745E-03	1.520E-03	1.913E-03	8.358E-03	5.671E-03
94	7.265E-03	1.233E-02	1.895E-03	3.596E-03	1.459E-03	1.839E-03	8.303E-03	5.424E-03
95	6.957E-03	1.179E-02	1.820E-03	3.450E-03	1.398E-03	1.767E-03	8.150E-03	5.188E-03
96	6.679E-03	1.129E-02	1.751E-03	3.316E-03	1.343E-03	1.699E-03	7.920E-03	4.978E-03
97	6.407E-03	1.082E-02	1.687E-03	3.192E-03	1.292E-03	1.638E-03	7.954E-03	4.768E-03
98	6.038E-03	1.024E-02	1.590E-03	3.005E-03	1.214E-03	1.544E-03	7.391E-03	4.492E-03
99	5.701E-03	9.725E-03	1.512E-03	2.857E-03	1.155E-03	1.468E-03	7.589E-03	4.231E-03
100	5.337E-03	9.194E-03	1.419E-03	2.679E-03	1.082E-03	1.378E-03	7.237E-03	3.958E-03
101	5.017E-03	8.746E-03	1.346E-03	2.540E-03	1.027E-03	1.306E-03	7.505E-03	3.710E-03
102	4.731E-03	8.361E-03	1.286E-03	2.427E-03	9.830E-04	1.249E-03	8.205E-03	3.481E-03
103	9.305E-03	1.551E-02	2.405E-03	4.580E-03	1.863E-03	2.334E-03	9.878E-03	6.969E-03
104	8.931E-03	1.486E-02	2.314E-03	4.403E-03	1.790E-03	2.246E-03	9.678E-03	6.683E-03
105	8.490E-03	1.411E-02	2.207E-03	4.194E-03	1.703E-03	2.142E-03	9.443E-03	6.345E-03
106	8.049E-03	1.336E-02	2.103E-03	3.990E-03	1.619E-03	2.041E-03	9.394E-03	6.005E-03
107	7.656E-03	1.272E-02	2.006E-03	3.803E-03	1.541E-03	1.948E-03	9.145E-03	5.707E-03
108	7.274E-03	1.210E-02	1.913E-03	3.621E-03	1.466E-03	1.857E-03	8.929E-03	5.416E-03
109	6.874E-03	1.148E-02	1.816E-03	3.435E-03	1.389E-03	1.763E-03	8.830E-03	5.110E-03
110	6.424E-03	1.080E-02	1.706E-03	3.224E-03	1.304E-03	1.656E-03	8.714E-03	4.766E-03
111	5.986E-03	1.016E-02	1.595E-03	3.011E-03	1.217E-03	1.548E-03	8.330E-03	4.437E-03
112	5.584E-03	9.589E-03	1.494E-03	2.821E-03	1.140E-03	1.451E-03	8.159E-03	4.132E-03
113	5.211E-03	9.075E-03	1.401E-03	2.643E-03	1.069E-03	1.360E-03	7.972E-03	3.850E-03
114	4.894E-03	8.655E-03	1.331E-03	2.509E-03	1.016E-03	1.292E-03	8.420E-03	3.601E-03
115	1.085E-02	1.749E-02	2.801E-03	5.339E-03	2.174E-03	2.718E-03	1.145E-02	8.132E-03
116	1.029E-02	1.658E-02	2.664E-03	5.071E-03	2.063E-03	2.585E-03	1.118E-02	7.697E-03
117	9.605E-03	1.554E-02	2.499E-03	4.749E-03	1.929E-03	2.425E-03	1.084E-02	7.177E-03
118	8.988E-03	1.459E-02	2.353E-03	4.464E-03	1.811E-03	2.284E-03	1.076E-02	6.702E-03
119	8.461E-03	1.381E-02	2.232E-03	4.233E-03	1.717E-03	2.166E-03	1.102E-02	6.293E-03
120	7.874E-03	1.293E-02	2.082E-03	3.939E-03	1.594E-03	2.021E-03	1.027E-02	5.851E-03
121	7.313E-03	1.210E-02	1.940E-03	3.666E-03	1.482E-03	1.883E-03	9.771E-03	5.428E-03
122	6.778E-03	1.133E-02	1.811E-03	3.420E-03	1.383E-03	1.758E-03	9.771E-03	5.019E-03
123	6.286E-03	1.062E-02	1.684E-03	3.180E-03	1.286E-03	1.635E-03	9.350E-03	4.649E-03
124	5.894E-03	1.009E-02	1.598E-03	3.019E-03	1.224E-03	1.551E-03	1.005E-02	4.341E-03
125	5.475E-03	9.514E-03	1.484E-03	2.799E-03	1.133E-03	1.440E-03	9.171E-03	4.033E-03
126	5.082E-03	8.994E-03	1.379E-03	2.600E-03	1.052E-03	1.339E-03	8.565E-03	3.742E-03
127	1.303E-02	2.020E-02	3.355E-03	6.406E-03	2.613E-03	3.256E-03	1.361E-02	9.774E-03
128	1.215E-02	1.891E-02	3.143E-03	5.990E-03	2.440E-03	3.050E-03	1.318E-02	9.101E-03
129	1.103E-02	1.735E-02	2.874E-03	5.465E-03	2.222E-03	2.789E-03	1.284E-02	8.239E-03
130	1.016E-02	1.613E-02	2.688E-03	5.102E-03	2.074E-03	2.609E-03	1.408E-02	7.552E-03
131	9.278E-03	1.490E-02	2.471E-03	4.679E-03	1.899E-03	2.399E-03	1.350E-02	6.877E-03
132	8.486E-03	1.380E-02	2.273E-03	4.299E-03	1.743E-03	2.206E-03	1.287E-02	6.278E-03
133	7.735E-03	1.271E-02	2.064E-03	3.898E-03	1.576E-03	2.004E-03	1.100E-02	5.729E-03
134	7.174E-03	1.192E-02	1.934E-03	3.651E-03	1.479E-03	1.877E-03	1.147E-02	5.296E-03
135	6.653E-03	1.119E-02	1.797E-03	3.393E-03	1.375E-03	1.745E-03	1.090E-02	4.907E-03
136	6.178E-03	1.054E-02	1.668E-03	3.148E-03	1.274E-03	1.620E-03	9.984E-03	4.557E-03
137	5.726E-03	9.940E-03	1.549E-03	2.921E-03	1.182E-03	1.503E-03	9.383E-03	4.221E-03
138	5.309E-03	9.393E-03	1.439E-03	2.712E-03	1.097E-03	1.396E-03	8.811E-03	3.911E-03
139	1.652E-02	2.445E-02	4.251E-03	8.143E-03	3.334E-03	4.124E-03	1.822E-02	1.239E-02
140	1.517E-02	2.260E-02	3.929E-03	7.509E-03	3.071E-03	3.812E-03	1.779E-02	1.135E-02
141	1.301E-02	1.982E-02	3.408E-03	6.490E-03	2.646E-03	3.307E-03	1.673E-02	9.704E-03
142	1.120E-02	1.746E-02	2.967E-03	5.625E-03	2.285E-03	2.880E-03	1.561E-02	8.315E-03
143	9.952E-03	1.581E-02	2.658E-03	5.025E-03	2.036E-03	2.580E-03	1.462E-02	7.369E-03
144	8.985E-03	1.450E-02	2.414E-03	4.558E-03	1.845E-03	2.343E-03	1.389E-02	6.639E-03
145	8.198E-03	1.341E-02	2.208E-03	4.167E-03	1.687E-03	2.143E-03	1.292E-02	6.053E-03
146	7.559E-03	1.251E-02	2.039E-03	3.848E-03	1.558E-03	1.979E-03	1.212E-02	5.579E-03
147	6.992E-03	1.173E-02	1.885E-03	3.559E-03	1.441E-03	1.830E-03	1.118E-02	5.161E-03
148	6.474E-03	1.104E-02	1.746E-03	3.295E-03	1.334E-03	1.695E-03	1.034E-02	4.777E-03
149	6.007E-03	1.042E-02	1.621E-03	3.058E-03	1.237E-03	1.574E-03	9.619E-03	4.432E-03
150	5.564E-03	9.839E-03	1.502E-03	2.834E-03	1.146E-03	1.458E-03	8.931E-03	4.105E-03
151	8.640E-03	1.408E-02	2.331E-03	4.398E-03	1.780E-03	2.263E-03	1.385E-02	6.375E-03
152	7.993E-03	1.318E-02	2.152E-03	4.061E-03	1.644E-03	2.089E-03	1.255E-02	5.903E-03
153	7.415E-03	1.239E-02	1.993E-03	3.763E-03	1.523E-03	1.935E-03	1.149E-02	5.479E-03
154	6.832E-03	1.163E-02	1.841E-03	3.479E-03	1.411E-03	1.787E-03	1.103E-02	5.044E-03
155	6.394E-03	1.103E-02	1.719E-03	3.245E-03	1.313E-03	1.668E-03	9.882E-03	4.724E-03
156	5.893E-03	1.039E-02	1.585E-03	2.995E-03	1.213E-03	1.538E-03	9.279E-03	4.353E-03
157	4.491E-03	8.312E-03	1.207E-03	2.288E-03	9.317E-04	1.171E-03	7.370E-03	3.319E-03
158	4.614E-03	8.419E-03	1.235E-03	2.341E-03	9.515E-04	1.199E-03	7.201E-03	3.414E-03
159	4.552E-03	8.451E-03	1.191E-03	2.257E-03	9.136E-04	1.156E-03	5.269E-03	3.395E-03
160	4.434E-03	8.344E-03	1.154E-03	2.190E-03	8.878E-04	1.120E-03	4.897E-03	3.313E-03
161	4.213E-03	7.930E-03	1.096E-03	2.080E-03	8.436E-04	1.064E-03	4.649E-03	3.148E-03
162	4.007E-03	7.455E-03	1.045E-03	1.981E-03	8.030E-04	1.014E-03	4.495E-03	2.992E-03
163	3.848E-03	6.998E-03	1.006E-03	1.906E-03	7.719E-04	9.767E-04	4.425E-03	2.871E-03
164	3.582E-03	6.475E-03	9.417E-04	1.780E-03	7.194E-04	9.143E-04	4.298E-03	2.666E-03
165	3.221E-03	5.921E-03	8.539E-04	1.610E-03	6.488E-04	8.291E-04	4.113E-03	2.391E-03
166	2.841E-03	5.406E-03	7.584E-04	1.425E-03	5.730E-04	7.365E-04	3.792E-03	2.104E-03
167	2.540E-03	5.046E-03	6.790E-04	1.275E-03	5.120E-04	6.594E-04	3.398E-03	1.880E-03
168	5.699E-03	1.023E-02	1.488E-03	2.822E-03	1.144E-03	1.445E-03	6.519E-03	4.253E-03
169	5.710E-03	1.036E-02	1.486E-03	2.820E-03	1.143E-03	1.442E-03	6.303E-03	4.266E-03

170	5.462E-03	9.991E-03	1.418E-03	2.694E-03	1.094E-03	1.376E-03	5.943E-03	4.085E-03
171	5.125E-03	9.288E-03	1.334E-03	2.532E-03	1.027E-03	1.295E-03	5.697E-03	3.829E-03
172	4.815E-03	8.589E-03	1.258E-03	2.385E-03	9.659E-04	1.222E-03	5.525E-03	3.593E-03
173	4.490E-03	7.894E-03	1.180E-03	2.231E-03	9.026E-04	1.145E-03	5.396E-03	3.344E-03
174	3.992E-03	7.124E-03	1.059E-03	1.998E-03	8.067E-04	1.028E-03	5.233E-03	2.963E-03
175	3.464E-03	6.397E-03	9.286E-04	1.748E-03	7.045E-04	9.017E-04	4.974E-03	2.562E-03
176	3.005E-03	5.822E-03	8.055E-04	1.513E-03	6.079E-04	7.822E-04	4.170E-03	2.222E-03
177	2.665E-03	5.373E-03	7.132E-04	1.340E-03	5.388E-04	6.926E-04	3.650E-03	1.972E-03
178	7.610E-03	1.328E-02	2.001E-03	3.809E-03	1.552E-03	1.941E-03	1.008E-02	5.667E-03
179	7.414E-03	1.298E-02	1.922E-03	3.655E-03	1.485E-03	1.865E-03	8.027E-03	5.547E-03
180	6.947E-03	1.214E-02	1.802E-03	3.426E-03	1.391E-03	1.749E-03	7.547E-03	5.196E-03
181	6.344E-03	1.097E-02	1.656E-03	3.141E-03	1.273E-03	1.608E-03	7.265E-03	4.735E-03
182	5.834E-03	9.980E-03	1.539E-03	2.913E-03	1.180E-03	1.494E-03	7.463E-03	4.339E-03
183	5.109E-03	8.829E-03	1.353E-03	2.556E-03	1.033E-03	1.314E-03	6.669E-03	3.794E-03
184	4.424E-03	7.877E-03	1.202E-03	2.267E-03	9.183E-04	1.166E-03	7.598E-03	3.256E-03
185	3.721E-03	6.948E-03	1.010E-03	1.902E-03	7.678E-04	9.811E-04	6.137E-03	2.739E-03
186	3.197E-03	6.276E-03	8.607E-04	1.619E-03	6.517E-04	8.357E-04	4.738E-03	2.361E-03
187	2.825E-03	5.714E-03	7.528E-04	1.418E-03	5.716E-04	7.310E-04	3.819E-03	2.093E-03
188	1.069E-02	1.781E-02	2.791E-03	5.325E-03	2.176E-03	2.708E-03	1.371E-02	7.975E-03
189	1.032E-02	1.696E-02	2.662E-03	5.075E-03	2.068E-03	2.583E-03	1.086E-02	7.734E-03
190	9.297E-03	1.523E-02	2.413E-03	4.589E-03	1.865E-03	2.342E-03	1.025E-02	6.952E-03
191	8.049E-03	1.324E-02	2.115E-03	4.009E-03	1.625E-03	2.053E-03	9.963E-03	5.994E-03
192	6.842E-03	1.142E-02	1.816E-03	3.432E-03	1.388E-03	1.763E-03	9.215E-03	5.077E-03
193	5.721E-03	9.808E-03	1.537E-03	2.902E-03	1.174E-03	1.492E-03	8.783E-03	4.227E-03
194	4.813E-03	8.590E-03	1.308E-03	2.464E-03	9.968E-04	1.270E-03	8.171E-03	3.542E-03
195	4.017E-03	7.576E-03	1.087E-03	2.048E-03	8.271E-04	1.055E-03	6.452E-03	2.961E-03
196	3.484E-03	6.841E-03	9.383E-04	1.774E-03	7.179E-04	9.109E-04	5.489E-03	2.572E-03
197	2.973E-03	6.003E-03	7.868E-04	1.488E-03	6.025E-04	7.638E-04	3.924E-03	2.208E-03
198	1.735E-02	2.644E-02	4.459E-03	8.553E-03	3.511E-03	4.325E-03	1.950E-02	1.302E-02
199	1.704E-02	2.533E-02	4.363E-03	8.364E-03	3.424E-03	4.233E-03	1.742E-02	1.281E-02
200	1.409E-02	2.120E-02	3.666E-03	6.993E-03	2.856E-03	3.557E-03	1.715E-02	1.053E-02
201	7.871E-03	1.294E-02	2.124E-03	4.009E-03	1.623E-03	2.062E-03	1.270E-02	5.808E-03
202	5.365E-03	9.583E-03	1.449E-03	2.733E-03	1.106E-03	1.406E-03	8.646E-03	3.958E-03
203	4.444E-03	8.391E-03	1.201E-03	2.270E-03	9.215E-04	1.165E-03	7.420E-03	3.278E-03
204	3.678E-03	7.214E-03	9.705E-04	1.839E-03	7.455E-04	9.420E-04	4.789E-03	2.735E-03
205	2.998E-03	6.085E-03	7.868E-04	1.492E-03	6.052E-04	7.637E-04	3.695E-03	2.233E-03
206	2.895E-03	5.995E-03	7.567E-04	1.437E-03	5.836E-04	7.345E-04	3.459E-03	2.159E-03
207	2.686E-03	5.720E-03	7.167E-04	1.363E-03	5.562E-04	6.954E-04	4.240E-03	1.990E-03
208	2.640E-04	6.790E-04	7.129E-05	1.343E-04	5.422E-05	6.921E-05	4.141E-04	1.948E-04
209	3.040E-04	7.498E-04	8.177E-05	1.541E-04	6.219E-05	7.939E-05	4.594E-04	2.245E-04
210	3.585E-04	9.114E-04	9.642E-05	1.814E-04	7.310E-05	9.362E-05	5.308E-04	2.648E-04
211	4.246E-04	1.090E-03	1.138E-04	2.143E-04	8.635E-05	1.105E-04	6.082E-04	3.140E-04
212	5.121E-04	1.342E-03	1.366E-04	2.575E-04	1.038E-04	1.326E-04	7.041E-04	3.794E-04
213	6.436E-04	1.708E-03	1.714E-04	3.228E-04	1.301E-04	1.664E-04	8.582E-04	4.770E-04
214	8.262E-04	2.128E-03	2.190E-04	4.130E-04	1.665E-04	2.127E-04	1.057E-03	6.133E-04
215	1.070E-03	2.525E-03	2.828E-04	5.334E-04	2.150E-04	2.746E-04	1.326E-03	7.948E-04
216	1.279E-03	2.950E-03	3.384E-04	6.377E-04	2.569E-04	3.286E-04	1.586E-03	9.499E-04
217	1.478E-03	3.197E-03	3.896E-04	7.354E-04	2.967E-04	3.783E-04	1.781E-03	1.100E-03
218	1.585E-03	3.354E-03	4.171E-04	7.876E-04	3.179E-04	4.050E-04	1.883E-03	1.180E-03
219	1.638E-03	3.364E-03	4.312E-04	8.140E-04	3.284E-04	4.187E-04	1.944E-03	1.219E-03
220	1.536E-03	3.123E-03	4.060E-04	7.650E-04	3.080E-04	3.943E-04	1.864E-03	1.142E-03
221	1.413E-03	2.941E-03	3.725E-04	7.025E-04	2.832E-04	3.617E-04	1.692E-03	1.051E-03
222	1.311E-03	2.774E-03	3.428E-04	6.493E-04	2.628E-04	3.328E-04	1.500E-03	9.780E-04
223	1.302E-03	2.678E-03	3.405E-04	6.451E-04	2.612E-04	3.306E-04	1.500E-03	9.713E-04
224	1.296E-03	2.644E-03	3.411E-04	6.446E-04	2.605E-04	3.311E-04	1.574E-03	9.641E-04
225	1.262E-03	2.612E-03	3.355E-04	6.318E-04	2.545E-04	3.258E-04	1.650E-03	9.358E-04
226	1.194E-03	2.499E-03	3.185E-04	5.991E-04	2.411E-04	3.092E-04	1.607E-03	8.840E-04
227	2.577E-04	6.726E-04	7.026E-05	1.320E-04	5.316E-05	6.822E-05	4.328E-04	1.894E-04
228	3.062E-04	7.928E-04	8.287E-05	1.560E-04	6.296E-05	8.046E-05	4.881E-04	2.257E-04
229	3.624E-04	9.038E-04	9.754E-05	1.838E-04	7.418E-05	9.470E-05	5.511E-04	2.676E-04
230	4.353E-04	1.132E-03	1.169E-04	2.201E-04	8.873E-05	1.135E-04	6.388E-04	3.217E-04
231	5.298E-04	1.374E-03	1.417E-04	2.669E-04	1.076E-04	1.376E-04	7.452E-04	3.921E-04
232	6.637E-04	1.791E-03	1.766E-04	3.329E-04	1.343E-04	1.715E-04	8.878E-04	4.920E-04
233	8.710E-04	2.286E-03	2.310E-04	4.355E-04	1.756E-04	2.243E-04	1.119E-03	6.465E-04
234	1.161E-03	2.846E-03	3.068E-04	5.789E-04	2.335E-04	2.979E-04	1.439E-03	8.629E-04
235	1.469E-03	3.419E-03	3.879E-04	7.317E-04	2.950E-04	3.767E-04	1.799E-03	1.092E-03
236	1.756E-03	3.788E-03	4.625E-04	8.731E-04	3.523E-04	4.491E-04	2.109E-03	1.306E-03
237	1.929E-03	3.990E-03	5.072E-04	9.581E-04	3.868E-04	4.924E-04	2.275E-03	1.437E-03
238	1.965E-03	3.965E-03	5.172E-04	9.763E-04	3.939E-04	5.021E-04	2.328E-03	1.462E-03
239	1.826E-03	3.660E-03	4.820E-04	9.085E-04	3.659E-04	4.680E-04	2.201E-03	1.357E-03
240	1.682E-03	3.521E-03	4.413E-04	8.344E-04	3.372E-04	4.284E-04	1.955E-03	1.254E-03
241	1.620E-03	3.314E-03	4.225E-04	8.011E-04	3.246E-04	4.101E-04	1.829E-03	1.209E-03
242	1.607E-03	3.223E-03	4.213E-04	7.974E-04	3.226E-04	4.090E-04	1.892E-03	1.197E-03
243	1.536E-03	3.097E-03	4.071E-04	7.674E-04	3.094E-04	3.953E-04	1.959E-03	1.140E-03
244	1.429E-03	2.945E-03	3.815E-04	7.174E-04	2.886E-04	3.705E-04	1.924E-03	1.058E-03
245	1.276E-03	2.695E-03	3.408E-04	6.410E-04	2.578E-04	3.310E-04	1.723E-03	9.452E-04
246	2.365E-04	6.244E-04	6.446E-05	1.212E-04	4.888E-05	6.258E-05	4.001E-04	1.739E-04
247	2.920E-04	7.788E-04	7.975E-05	1.498E-04	6.036E-05	7.743E-05	4.991E-04	2.145E-04
248	3.581E-04	9.415E-04	9.706E-05	1.826E-04	7.364E-05	9.423E-05	5.750E-04	2.638E-04
249	4.407E-04	1.127E-03	1.186E-04	2.233E-04	9.007E-05	1.151E-04	6.623E-04	3.255E-04
250	5.457E-04	1.436E-03	1.463E-04	2.756E-04	1.112E-04	1.420E-04	7.908E-04	4.035E-04
251	6.918E-04	1.853E-03	1.845E-04	3.477E-04	1.402E-04	1.791E-04	9.472E-04	5.125E-04
252	9.137E-04	2.488E-03	2.423E-04	4.570E-04	1.844E-04	2.352E-04	1.181E-03	6.782E-04
253	1.269E-03	3.241E-03	3.350E-04	6.325E-04	2.553E-04	3.253E-04	1.567E-03	9.435E-04
254	1.705E-03	4.014E-03	4.489E-04	8.480E-04	3.424E-04	4.359E-04	2.054E-03	1.269E-03
255	2.136E-03	4.596E-03	5.621E-04	1.062E-03	4.285E-04	5.458E-04	2.543E-03	1.590E-03
256	2.414E-03	4.861E-03	6.339E-04	1.198E-03	4.839E-04	6.155E-04	2.824E-03	1.798E-03
257	2.420E-03	4.749E-03	6.367E-04	1.202E-03	4.849E-04	6.182E-04	2.861E-03	1.801E-03
258	2.272E-03	4.540E-03	5.978E-04	1.128E-03	4.552E-04	5.805E-04	2.685E-03	1.691E-03
259	2.122E-03	4.325E-03	5.538E-04	1.050E-03	4.251E-04	5.376E-04	2.395E-03	1.584E-03
260	2.077E-03	4.084E-03	5.421E-04	1.028E-03	4.165E-04	5.262E-04	2.361E-03	1.550E-03
261	1.947E-03	3.818E-03	5.137E-04	9.699E-04	3.916E-04	4.987E-04	2.394E-03	1.448E-03
262	1.759E-03	3.540E-03	4.696E-04	8.826E-04	3.548E-04	4.560E-04	2.352E-03	1.302E-03
263	1.558E-03	3.234E-03	4.159E-04	7.820E-04	3.145E-04	4.039E-04	2.095E-03	1.153E-03
264	1.318E-03	2.834E-03	3.506E-04	6.602E-04	2.659E-04	3.405E-04	1.738E-03	9.768E-04
265	2.365E-04	6.542E-04	6.447E-05	1.218E-04	4.937E-05	6.257E-05	4.218E-04	1.739E-04
266	2.764E-04	7.482E-04	7.512E-05	1.416E-04	5.727E-05	7.292E-05	4.687E-04	2.034E-04

267	3.399E-04	9.289E-04	9.263E-05	1.742E-04	7.027E-05	8.993E-05	5.760E-04	2.499E-04
268	4.269E-04	1.148E-03	1.158E-04	2.178E-04	8.781E-05	1.124E-04	6.871E-04	3.144E-04
269	5.501E-04	1.464E-03	1.480E-04	2.786E-04	1.123E-04	1.437E-04	8.209E-04	4.063E-04
270	7.142E-04	1.915E-03	1.907E-04	3.595E-04	1.450E-04	1.852E-04	9.960E-04	5.289E-04
271	9.680E-04	2.709E-03	2.571E-04	4.849E-04	1.956E-04	2.496E-04	1.273E-03	7.182E-04
272	1.377E-03	3.700E-03	3.630E-04	6.860E-04	2.772E-04	3.524E-04	1.695E-03	1.024E-03
273	2.017E-03	4.803E-03	5.296E-04	1.002E-03	4.053E-04	5.141E-04	2.407E-03	1.502E-03
274	2.708E-03	5.785E-03	7.178E-04	1.359E-03	5.505E-04	6.968E-04	3.662E-03	2.011E-03
275	3.154E-03	6.145E-03	8.290E-04	1.569E-03	6.343E-04	8.048E-04	3.787E-03	2.349E-03
276	3.151E-03	6.020E-03	8.279E-04	1.564E-03	6.313E-04	8.038E-04	3.687E-03	2.346E-03
277	2.985E-03	5.882E-03	7.800E-04	1.477E-03	5.978E-04	7.572E-04	3.382E-03	2.227E-03
278	2.808E-03	5.454E-03	7.316E-04	1.388E-03	5.626E-04	7.102E-04	3.140E-03	2.097E-03
279	2.641E-03	4.995E-03	6.928E-04	1.311E-03	5.301E-04	6.726E-04	3.118E-03	1.967E-03
280	2.283E-03	4.413E-03	6.080E-04	1.144E-03	4.600E-04	5.904E-04	2.985E-03	1.692E-03
281	1.946E-03	3.969E-03	5.199E-04	9.769E-04	3.926E-04	5.049E-04	2.608E-03	1.441E-03
282	1.622E-03	3.458E-03	4.313E-04	8.121E-04	3.270E-04	4.188E-04	2.119E-03	1.203E-03
283	1.294E-03	2.875E-03	3.431E-04	6.469E-04	2.608E-04	3.332E-04	1.666E-03	9.601E-04
284	2.423E-04	6.170E-04	6.638E-05	1.249E-04	5.047E-05	6.444E-05	4.363E-04	1.778E-04
285	2.823E-04	7.695E-04	7.719E-05	1.456E-04	5.896E-05	7.493E-05	5.112E-04	2.073E-04
286	3.367E-04	9.229E-04	9.130E-05	1.724E-04	6.984E-05	8.863E-05	5.689E-04	2.480E-04
287	4.192E-04	1.164E-03	1.134E-04	2.138E-04	8.643E-05	1.101E-04	6.796E-04	3.090E-04
288	5.345E-04	1.473E-03	1.443E-04	2.719E-04	1.097E-04	1.401E-04	8.348E-04	3.943E-04
289	7.172E-04	2.003E-03	1.925E-04	3.624E-04	1.461E-04	1.869E-04	1.044E-03	5.301E-04
290	1.005E-03	2.859E-03	2.674E-04	5.043E-04	2.035E-04	2.596E-04	1.354E-03	7.450E-04
291	1.510E-03	4.310E-03	3.978E-04	7.521E-04	3.040E-04	3.862E-04	1.855E-03	1.124E-03
292	2.524E-03	6.016E-03	6.797E-04	1.290E-03	5.260E-04	6.595E-04	4.296E-03	1.863E-03
293	3.584E-03	7.521E-03	9.357E-04	1.775E-03	7.192E-04	9.083E-04	4.098E-03	2.675E-03
294	2.068E-03	4.332E-03	5.496E-04	1.035E-03	4.165E-04	5.337E-04	2.674E-03	1.534E-03
295	1.593E-03	3.491E-03	4.218E-04	7.953E-04	3.206E-04	4.095E-04	2.017E-03	1.183E-03
296	1.190E-03	2.667E-03	3.153E-04	5.945E-04	2.396E-04	3.062E-04	1.507E-03	8.839E-04
297	2.194E-04	5.544E-04	6.060E-05	1.136E-04	4.574E-05	5.884E-05	4.090E-04	1.605E-04
298	2.656E-04	6.829E-04	7.335E-05	1.376E-04	5.542E-05	7.122E-05	4.978E-04	1.943E-04
299	3.242E-04	8.886E-04	8.946E-05	1.680E-04	6.778E-05	8.685E-05	6.111E-04	2.372E-04
300	3.979E-04	1.133E-03	1.087E-04	2.046E-04	8.255E-05	1.056E-04	6.937E-04	2.922E-04
301	5.168E-04	1.510E-03	1.398E-04	2.634E-04	1.063E-04	1.358E-04	8.282E-04	3.809E-04
302	7.081E-04	2.039E-03	1.899E-04	3.582E-04	1.447E-04	1.844E-04	1.047E-03	5.236E-04
303	1.030E-03	3.043E-03	2.743E-04	5.175E-04	2.089E-04	2.663E-04	1.408E-03	7.635E-04
304	1.628E-03	5.011E-03	4.297E-04	8.122E-04	3.282E-04	4.172E-04	2.039E-03	1.211E-03
305	2.972E-03	7.524E-03	7.744E-04	1.473E-03	5.988E-04	7.516E-04	3.457E-03	2.220E-03
306	2.082E-03	4.431E-03	5.482E-04	1.036E-03	4.186E-04	5.322E-04	2.532E-03	1.549E-03
307	1.488E-03	3.255E-03	3.918E-04	7.403E-04	2.990E-04	3.804E-04	1.810E-03	1.107E-03
308	1.102E-03	2.461E-03	2.902E-04	5.482E-04	2.214E-04	2.817E-04	1.336E-03	8.199E-04
309	1.774E-04	5.350E-04	4.963E-05	9.349E-05	3.793E-05	4.816E-05	3.884E-04	1.292E-04
310	2.218E-04	6.335E-04	6.150E-05	1.157E-04	4.680E-05	5.970E-05	4.445E-04	1.620E-04
311	2.815E-04	7.891E-04	7.769E-05	1.460E-04	5.894E-05	7.542E-05	5.345E-04	2.060E-04
312	3.621E-04	1.046E-03	9.956E-05	1.869E-04	7.536E-05	9.666E-05	6.589E-04	2.653E-04
313	4.709E-04	1.422E-03	1.289E-04	2.421E-04	9.755E-05	1.251E-04	8.192E-04	3.457E-04
314	6.541E-04	2.076E-03	1.773E-04	3.334E-04	1.343E-04	1.722E-04	1.044E-03	4.818E-04
315	9.720E-04	3.163E-03	2.612E-04	4.916E-04	1.981E-04	2.536E-04	1.427E-03	7.182E-04
316	1.628E-03	5.815E-03	4.317E-04	8.147E-04	3.289E-04	4.191E-04	2.129E-03	1.208E-03
317	3.552E-03	1.049E-02	9.211E-04	1.753E-03	7.133E-04	8.939E-04	3.926E-03	2.657E-03
318	1.904E-03	4.140E-03	4.999E-04	9.466E-04	3.832E-04	4.853E-04	2.291E-03	1.419E-03
319	1.300E-03	2.976E-03	3.424E-04	6.470E-04	2.613E-04	3.324E-04	1.586E-03	9.670E-04
320	9.716E-04	2.303E-03	2.565E-04	4.839E-04	1.951E-04	2.490E-04	1.189E-03	7.223E-04
321	1.524E-04	4.948E-04	4.299E-05	8.104E-05	3.296E-05	4.171E-05	3.606E-04	1.106E-04
322	1.827E-04	6.042E-04	5.179E-05	9.766E-05	3.974E-05	5.026E-05	4.472E-04	1.324E-04
323	2.214E-04	7.224E-04	6.210E-05	1.170E-04	4.745E-05	6.027E-05	4.929E-04	1.611E-04
324	2.825E-04	8.926E-04	7.825E-05	1.472E-04	5.951E-05	7.596E-05	5.591E-04	2.065E-04
325	3.850E-04	1.230E-03	1.059E-04	1.989E-04	8.026E-05	1.028E-04	7.055E-04	2.822E-04
326	5.461E-04	1.902E-03	1.497E-04	2.811E-04	1.132E-04	1.454E-04	9.639E-04	4.006E-04
327	8.246E-04	3.171E-03	2.237E-04	4.201E-04	1.690E-04	2.172E-04	1.309E-03	6.071E-04
328	1.439E-03	6.670E-03	3.860E-04	7.267E-04	2.929E-04	3.748E-04	2.083E-03	1.064E-03
329	3.567E-03	1.876E-02	9.313E-04	1.768E-03	7.175E-04	9.040E-04	4.159E-03	2.662E-03
330	1.636E-03	3.706E-03	4.294E-04	8.121E-04	3.282E-04	4.169E-04	1.926E-03	1.219E-03
331	1.191E-03	2.705E-03	3.140E-04	5.924E-04	2.389E-04	3.049E-04	1.439E-03	8.854E-04
332	9.407E-04	2.072E-03	2.487E-04	4.687E-04	1.888E-04	2.415E-04	1.154E-03	6.989E-04
333	1.434E-04	3.767E-04	3.937E-05	7.424E-05	3.000E-05	3.822E-05	2.636E-04	1.051E-04
334	1.661E-04	4.750E-04	4.567E-05	8.591E-05	3.472E-05	4.434E-05	3.083E-04	1.218E-04
335	1.972E-04	6.224E-04	5.441E-05	1.023E-04	4.135E-05	5.282E-05	3.765E-04	1.444E-04
336	2.426E-04	8.271E-04	6.723E-05	1.264E-04	5.107E-05	6.527E-05	4.793E-04	1.773E-04
337	3.103E-04	1.110E-03	8.643E-05	1.625E-04	6.571E-05	8.390E-05	6.403E-04	2.264E-04
338	4.172E-04	1.554E-03	1.156E-04	2.173E-04	8.778E-05	1.123E-04	8.222E-04	3.049E-04
339	6.483E-04	2.623E-03	1.781E-04	3.347E-04	1.350E-04	1.729E-04	1.181E-03	4.752E-04
340	1.172E-03	6.479E-03	3.179E-04	5.981E-04	2.412E-04	3.087E-04	1.897E-03	8.635E-04
341	4.427E-03	8.766E-03	1.141E-03	2.181E-03	8.917E-04	1.107E-03	4.839E-03	3.319E-03
342	2.156E-03	4.719E-03	5.650E-04	1.069E-03	4.325E-04	5.485E-04	2.515E-03	1.607E-03
343	1.455E-03	3.174E-03	3.836E-04	7.236E-04	2.917E-04	3.724E-04	1.751E-03	1.082E-03
344	1.086E-03	2.375E-03	2.870E-04	5.408E-04	2.178E-04	2.787E-04	1.328E-03	8.066E-04
345	8.449E-04	1.907E-03	2.237E-04	4.213E-04	1.696E-04	2.173E-04	1.045E-03	6.275E-04
346	1.280E-04	3.326E-04	3.644E-05	6.862E-05	2.790E-05	3.536E-05	3.201E-04	9.261E-05
347	1.450E-04	3.831E-04	4.054E-05	7.637E-05	3.091E-05	3.935E-05	3.106E-04	1.056E-04
348	1.706E-04	4.575E-04	4.723E-05	8.886E-05	3.592E-05	4.585E-05	3.361E-04	1.247E-04
349	2.067E-04	5.746E-04	5.666E-05	1.067E-04	4.309E-05	5.501E-05	3.738E-04	1.516E-04
350	2.612E-04	7.887E-04	7.111E-05	1.340E-04	5.415E-05	6.904E-05	4.467E-04	1.921E-04
351	3.495E-04	1.209E-03	9.494E-05	1.788E-04	7.221E-05	9.217E-05	5.832E-04	2.572E-04
352	5.210E-04	2.033E-03	1.419E-04	2.668E-04	1.076E-04	1.377E-04	8.779E-04	3.831E-04
353	8.728E-04	4.436E-03	2.393E-04	4.491E-04	1.810E-04	2.323E-04	1.540E-03	6.403E-04
354	3.090E-03	6.476E-03	7.974E-04	1.519E-03	6.187E-04	7.739E-04	3.257E-03	2.315E-03
355	1.722E-03	3.942E-03	4.508E-04	8.533E-04	3.452E-04	4.377E-04	1.985E-03	1.284E-03
356	1.181E-03	2.876E-03	3.115E-04	5.876E-04	2.369E-04	3.024E-04	1.420E-03	8.787E-04
357	8.958E-04	2.243E-03	2.369E-04	4.463E-04	1.797E-04	2.301E-04	1.098E-03	6.655E-04
358	7.250E-04	1.814E-03	1.919E-04	3.614E-04	1.455E-04	1.863E-04	8.918E-04	5.385E-04
359	1.131E-04	3.202E-04	3.206E-05	6.053E-05	2.473E-05	3.110E-05	2.847E-04	8.197E-05
360	1.316E-04	3.762E-04	3.710E-05	7.024E-05	2.872E-05	3.599E-05	3.213E-04	9.558E-05
361	1.522E-04	4.510E-04	4.181E-05	7.904E-05	3.211E-05	4.058E-05	2.948E-04	1.116E-04
362	1.849E-04	5.623E-04	5.036E-05	9.512E-05	3.854E-05	4.888E-05	3.253E-04	1.360E-04
363	2.317E-04	7.295E-04	6.274E-05	1.184E-04	4.786E-05	6.091E-05	3.790E-04	1.707E-04

364	3.026E-04	9.904E-04	8.148E-05	1.535E-04	6.192E-05	7.911E-05	4.578E-04	2.235E-04
365	4.104E-04	1.454E-03	1.105E-04	2.077E-04	8.356E-05	1.073E-04	6.050E-04	3.030E-04
366	6.472E-04	2.798E-03	1.739E-04	3.268E-04	1.315E-04	1.689E-04	9.314E-04	4.782E-04
367	1.455E-03	9.919E-03	3.888E-04	7.318E-04	2.947E-04	3.775E-04	2.000E-03	1.078E-03
368	4.969E-03	2.130E-02	1.344E-03	2.508E-03	1.001E-03	1.306E-03	6.970E-03	3.662E-03
369	3.871E-03	9.051E-03	1.008E-03	1.913E-03	7.758E-04	9.783E-04	4.316E-03	2.892E-03
370	2.272E-03	5.223E-03	5.919E-04	1.123E-03	4.551E-04	5.745E-04	2.541E-03	1.696E-03
371	1.439E-03	3.388E-03	3.768E-04	7.132E-04	2.885E-04	3.658E-04	1.661E-03	1.073E-03
372	1.008E-03	2.425E-03	2.652E-04	5.009E-04	2.022E-04	2.575E-04	1.199E-03	7.505E-04
373	7.611E-04	1.869E-03	2.008E-04	3.788E-04	1.527E-04	1.950E-04	9.222E-04	5.659E-04
374	6.147E-04	1.527E-03	1.626E-04	3.064E-04	1.234E-04	1.579E-04	7.567E-04	4.566E-04
375	1.092E-04	2.838E-04	3.069E-05	5.799E-05	2.369E-05	2.977E-05	2.604E-04	7.941E-05
376	1.273E-04	3.353E-04	3.569E-05	6.745E-05	2.754E-05	3.463E-05	2.975E-04	9.265E-05
377	1.508E-04	4.084E-04	4.199E-05	7.951E-05	3.244E-05	4.074E-05	3.339E-04	1.100E-04
378	1.779E-04	5.061E-04	4.819E-05	9.097E-05	3.681E-05	4.678E-05	2.937E-04	1.311E-04
379	2.246E-04	6.399E-04	6.068E-05	1.142E-04	4.602E-05	5.892E-05	3.479E-04	1.657E-04
380	2.869E-04	8.199E-04	7.778E-05	1.459E-04	5.864E-05	7.553E-05	4.461E-04	2.113E-04
381	3.856E-04	1.165E-03	1.045E-04	1.961E-04	7.879E-05	1.015E-04	5.960E-04	2.841E-04
382	5.603E-04	2.132E-03	1.500E-04	2.827E-04	1.141E-04	1.457E-04	8.054E-04	4.145E-04
383	1.095E-03	4.792E-03	2.922E-04	5.500E-04	2.215E-04	2.837E-04	1.489E-03	8.109E-04
384	2.199E-03	1.168E-02	5.972E-04	1.115E-03	4.455E-04	5.802E-04	3.270E-03	1.618E-03
385	2.780E-03	2.202E-02	7.592E-04	1.414E-03	5.629E-04	7.376E-04	4.223E-03	2.042E-03
386	3.070E-03	2.297E-02	8.373E-04	1.557E-03	6.186E-04	8.136E-04	4.487E-03	2.256E-03
387	2.917E-03	1.110E-02	7.851E-04	1.467E-03	5.859E-04	7.627E-04	3.934E-03	2.154E-03
388	2.424E-03	5.900E-03	6.415E-04	1.208E-03	4.862E-04	6.229E-04	2.982E-03	1.800E-03
389	1.793E-03	3.940E-03	4.721E-04	8.913E-04	3.596E-04	4.584E-04	2.137E-03	1.335E-03
390	1.269E-03	2.789E-03	3.342E-04	6.309E-04	2.546E-04	3.245E-04	1.514E-03	9.446E-04
391	9.412E-04	2.087E-03	2.476E-04	4.676E-04	1.888E-04	2.404E-04	1.119E-03	7.006E-04
392	7.191E-04	1.641E-03	1.894E-04	3.575E-04	1.443E-04	1.839E-04	8.620E-04	5.351E-04
393	5.789E-04	1.353E-03	1.529E-04	2.883E-04	1.162E-04	1.485E-04	7.079E-04	4.302E-04
394	1.101E-04	2.907E-04	3.065E-05	5.791E-05	2.360E-05	2.974E-05	2.418E-04	8.034E-05
395	1.331E-04	3.435E-04	3.698E-05	6.975E-05	2.836E-05	3.589E-05	2.824E-04	9.717E-05
396	1.613E-04	3.997E-04	4.513E-05	8.505E-05	3.454E-05	4.380E-05	3.363E-04	1.175E-04
397	1.879E-04	4.655E-04	5.187E-05	9.765E-05	3.949E-05	5.035E-05	3.625E-04	1.375E-04
398	2.160E-04	5.555E-04	5.922E-05	1.113E-04	4.489E-05	5.750E-05	3.842E-04	1.584E-04
399	2.560E-04	7.167E-04	6.978E-05	1.310E-04	5.273E-05	6.775E-05	4.240E-04	1.882E-04
400	3.295E-04	1.121E-03	8.846E-05	1.668E-04	6.732E-05	8.589E-05	4.889E-04	2.435E-04
401	4.913E-04	1.836E-03	1.308E-04	2.470E-04	9.977E-05	1.270E-04	6.766E-04	3.642E-04
402	8.765E-04	3.241E-03	2.342E-04	4.409E-04	1.776E-04	2.274E-04	1.212E-03	6.489E-04
403	1.425E-03	5.546E-03	3.859E-04	7.220E-04	2.890E-04	3.748E-04	2.112E-03	1.049E-03
404	1.859E-03	8.248E-03	5.058E-04	9.433E-04	3.762E-04	4.914E-04	2.764E-03	1.367E-03
405	2.064E-03	8.946E-03	5.624E-04	1.049E-03	4.183E-04	5.463E-04	3.120E-03	1.517E-03
406	2.017E-03	6.972E-03	5.424E-04	1.015E-03	4.060E-04	5.269E-04	2.748E-03	1.490E-03
407	1.758E-03	4.733E-03	4.686E-04	8.800E-04	3.532E-04	4.551E-04	2.267E-03	1.302E-03
408	1.411E-03	3.325E-03	3.731E-04	7.032E-04	2.833E-04	3.623E-04	1.732E-03	1.049E-03
409	1.105E-03	2.446E-03	2.923E-04	5.507E-04	2.217E-04	2.839E-04	1.364E-03	8.204E-04
410	8.770E-04	1.932E-03	2.319E-04	4.371E-04	1.761E-04	2.252E-04	1.081E-03	6.516E-04
411	7.023E-04	1.576E-03	1.853E-04	3.496E-04	1.409E-04	1.799E-04	8.521E-04	5.222E-04
412	5.596E-04	1.282E-03	1.478E-04	2.787E-04	1.123E-04	1.435E-04	6.819E-04	4.160E-04
413	1.874E-04	5.286E-04	5.175E-05	9.738E-05	3.933E-05	5.024E-05	3.581E-04	1.371E-04
414	1.637E-04	4.906E-04	4.480E-05	8.443E-05	3.413E-05	4.349E-05	2.933E-04	1.202E-04
415	1.528E-04	4.792E-04	4.134E-05	7.844E-05	3.194E-05	4.012E-05	2.663E-04	1.126E-04
416	2.239E-04	7.167E-04	6.053E-05	1.141E-04	4.609E-05	5.877E-05	3.561E-04	1.651E-04
417	2.050E-04	6.604E-04	5.487E-05	1.041E-04	4.232E-05	5.325E-05	3.185E-04	1.517E-04
418	2.126E-04	5.827E-04	5.712E-05	1.080E-04	4.380E-05	5.544E-05	3.339E-04	1.571E-04
419	2.930E-04	9.782E-04	7.796E-05	1.476E-04	5.985E-05	7.568E-05	4.164E-04	2.173E-04
420	3.004E-04	8.545E-04	8.080E-05	1.522E-04	6.142E-05	7.845E-05	4.522E-04	2.219E-04
421	2.815E-04	8.010E-04	7.658E-05	1.441E-04	5.815E-05	7.435E-05	4.710E-04	2.071E-04
422	4.533E-04	1.513E-03	1.216E-04	2.289E-04	9.222E-05	1.181E-04	6.530E-04	3.352E-04
423	4.152E-04	1.342E-03	1.117E-04	2.104E-04	8.481E-05	1.084E-04	6.185E-04	3.067E-04
424	3.893E-04	1.200E-03	1.051E-04	1.978E-04	7.970E-05	1.021E-04	5.997E-04	2.871E-04
425	7.327E-04	2.461E-03	1.966E-04	3.698E-04	1.488E-04	1.910E-04	1.048E-03	5.416E-04
426	6.383E-04	2.021E-03	1.720E-04	3.230E-04	1.298E-04	1.670E-04	9.390E-04	4.711E-04
427	5.722E-04	1.760E-03	1.543E-04	2.899E-04	1.167E-04	1.498E-04	8.561E-04	4.223E-04
428	1.090E-03	3.735E-03	2.948E-04	5.519E-04	2.211E-04	2.863E-04	1.605E-03	8.030E-04
429	8.920E-04	2.834E-03	2.409E-04	4.516E-04	1.812E-04	2.339E-04	1.311E-03	6.578E-04
430	7.512E-04	2.238E-03	2.029E-04	3.806E-04	1.527E-04	1.971E-04	1.113E-03	5.539E-04
431	1.365E-03	5.088E-03	3.705E-04	6.918E-04	2.762E-04	3.599E-04	2.010E-03	1.005E-03
432	1.053E-03	3.550E-03	2.857E-04	5.338E-04	2.133E-04	2.775E-04	1.561E-03	7.748E-04
433	8.520E-04	2.685E-03	2.312E-04	4.321E-04	1.727E-04	2.246E-04	1.266E-03	6.272E-04
434	1.496E-03	5.392E-03	4.058E-04	7.583E-04	3.032E-04	3.942E-04	2.224E-03	1.101E-03
435	1.152E-03	3.809E-03	3.114E-04	5.825E-04	2.332E-04	3.024E-04	1.660E-03	8.497E-04
436	9.206E-04	2.896E-03	2.481E-04	4.646E-04	1.861E-04	2.410E-04	1.302E-03	6.794E-04
437	1.505E-03	4.736E-03	4.055E-04	7.601E-04	3.048E-04	3.938E-04	2.154E-03	1.111E-03
438	1.165E-03	3.439E-03	3.137E-04	5.887E-04	2.365E-04	3.046E-04	1.681E-03	8.605E-04
439	9.339E-04	2.673E-03	2.506E-04	4.707E-04	1.892E-04	2.434E-04	1.315E-03	6.903E-04
440	1.357E-03	3.727E-03	3.635E-04	6.820E-04	2.736E-04	3.531E-04	1.836E-03	1.004E-03
441	1.096E-03	2.977E-03	2.951E-04	5.536E-04	2.223E-04	2.865E-04	1.577E-03	8.090E-04
442	9.054E-04	2.425E-03	2.438E-04	4.575E-04	1.838E-04	2.368E-04	1.311E-03	6.684E-04
443	1.144E-03	2.923E-03	3.058E-04	5.761E-04	2.322E-04	2.969E-04	1.590E-03	8.471E-04
444	9.607E-04	2.470E-03	2.591E-04	4.875E-04	1.964E-04	2.516E-04	1.459E-03	7.089E-04
445	8.135E-04	2.044E-03	2.184E-04	4.100E-04	1.646E-04	2.121E-04	1.140E-03	6.012E-04
446	9.487E-04	2.258E-03	2.518E-04	4.743E-04	1.910E-04	2.445E-04	1.215E-03	7.040E-04
447	8.100E-04	2.039E-03	2.147E-04	4.045E-04	1.629E-04	2.085E-04	1.023E-03	6.013E-04
448	7.031E-04	1.781E-03	1.871E-04	3.522E-04	1.418E-04	1.817E-04	9.216E-04	5.213E-04
449	7.831E-04	1.778E-03	2.078E-04	3.910E-04	1.572E-04	2.018E-04	9.829E-04	5.811E-04
450	6.862E-04	1.657E-03	1.822E-04	3.428E-04	1.379E-04	1.770E-04	8.687E-04	5.090E-04
451	6.080E-04	1.526E-03	1.614E-04	3.040E-04	1.224E-04	1.567E-04	7.784E-04	4.511E-04

RECEPTOR # 87 HAS HIGHEST CHRONIC HAZARD INDEX OF 5.163E-02

*** CHRONIC HAZARD INDEX BY POLLUTANT FOR PEAK RECEPTOR # 87 ***

POLLUTANT	ORAL DOSE (mg/kg-d)	BACKGR (ug/m3)	AEL (ug/m3)	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
ACETA	0.000E+00	0.000E+00	9.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACROL	0.000E+00	0.000E+00	2.000E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
As	1.000E-03	0.000E+00	5.000E-01	2.769E-03	2.769E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.892E-04	2.769E-03
BENZE	0.000E+00	0.000E+00	7.100E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Be	5.000E-03	0.000E+00	4.800E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.566E-03	0.000E+00
Cd	1.000E-03	0.000E+00	3.500E+00	0.000E+00	0.000E+00	0.000E+00	1.240E-04	0.000E+00	0.000E+00	2.546E-06	0.000E+00
Cr	5.000E-03	0.000E+00	2.000E-03	0.000E+00	0.000E+00	0.000E+00	7.480E-04	7.480E-04	0.000E+00	7.449E-04	0.000E+00
Cu	0.000E+00	0.000E+00	2.400E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.557E-06	0.000E+00
HCHO	0.000E+00	0.000E+00	3.600E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HCN	0.000E+00	0.000E+00	7.000E+01	0.000E+00	4.734E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pb	4.300E-04	0.000E+00	1.500E+00	9.425E-04	9.425E-04	9.425E-04	9.425E-04	0.000E+00	9.425E-04	0.000E+00	0.000E+00
Mn	0.000E+00	0.000E+00	4.000E-01	0.000E+00	5.829E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.829E-04	0.000E+00
Hg	3.000E-04	0.000E+00	3.000E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni	0.000E+00	0.000E+00	2.400E-01	0.000E+00	0.000E+00	2.853E-05	2.853E-05	0.000E+00	0.000E+00	2.853E-05	0.000E+00
NAPTH	4.000E-03	0.000E+00	1.400E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Se	0.000E+00	0.000E+00	5.000E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOL	0.000E+00	0.000E+00	2.000E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XYLEN	0.000E+00	0.000E+00	3.000E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zn	0.000E+00	0.000E+00	3.500E+01	8.965E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.965E-07	0.000E+00
			SUM =	3.713E-03	5.163E-02	9.710E-04	1.843E-03	7.480E-04	9.425E-04	4.423E-03	2.769E-03

*** CHRONIC HAZARD INDEX BY SOURCE FOR PEAK RECEPTOR # 87 ***

POLLUTANT ACETA ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 9.000E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT ACROL ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.000E-02 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT As ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 5.000E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 1.000E-03

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	1.339E-05	1.339E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.359E-06	1.339E-05
SOURCE #	2	8.911E-06	8.911E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.570E-06	8.911E-06
SOURCE #	3	1.071E-05	1.071E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.886E-06	1.071E-05
SOURCE #	4	1.541E-05	1.541E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.714E-06	1.541E-05
SOURCE #	5	2.170E-06	2.170E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.822E-07	2.170E-06
SOURCE #	6	3.784E-06	3.784E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.664E-07	3.784E-06
SOURCE #	7	1.174E-06	1.174E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.067E-07	1.174E-06
SOURCE #	8	1.761E-06	1.761E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.102E-07	1.761E-06
SOURCE #	9	1.698E-06	1.698E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.991E-07	1.698E-06
SOURCE #	10	1.887E-06	1.887E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.324E-07	1.887E-06
SOURCE #	11	5.635E-07	5.635E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.925E-08	5.635E-07
SOURCE #	12	5.918E-07	5.918E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.042E-07	5.918E-07
SOURCE #	13	1.865E-04	1.865E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.286E-05	1.865E-04
SOURCE #	14	1.246E-04	1.246E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.195E-05	1.246E-04
SOURCE #	15	1.545E-04	1.545E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.721E-05	1.545E-04
SOURCE #	16	2.192E-04	2.192E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.861E-05	2.192E-04
SOURCE #	17	3.104E-05	3.104E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.467E-06	3.104E-05
SOURCE #	18	5.306E-05	5.306E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.347E-06	5.306E-05
SOURCE #	19	1.220E-04	1.220E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.148E-05	1.220E-04
SOURCE #	20	8.269E-05	8.269E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.457E-05	8.269E-05
SOURCE #	21	8.175E-05	8.175E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.440E-05	8.175E-05
SOURCE #	22	1.271E-04	1.271E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.239E-05	1.271E-04
SOURCE #	23	1.926E-05	1.926E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.392E-06	1.926E-05
SOURCE #	24	3.554E-05	3.554E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.260E-06	3.554E-05
SOURCE #	25	8.136E-06	8.136E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.834E-06	8.136E-06
SOURCE #	26	5.701E-04	5.701E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.004E-04	5.701E-04
SOURCE #	27	3.391E-04	3.391E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.972E-05	3.391E-04
SOURCE #	28	2.978E-05	2.978E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.245E-06	2.978E-05
SOURCE #	29	3.074E-05	3.074E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.414E-06	3.074E-05
SOURCE #	30	4.807E-05	4.807E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.468E-06	4.807E-05
SOURCE #	31	1.014E-04	1.014E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.787E-05	1.014E-04
SOURCE #	32	5.940E-05	5.940E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.046E-05	5.940E-05
SOURCE #	33	5.486E-06	5.486E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.663E-07	5.486E-06
SOURCE #	34	5.697E-06	5.697E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.003E-06	5.697E-06
SOURCE #	35	8.977E-06	8.977E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.581E-06	8.977E-06
SOURCE #	36	1.474E-04	1.474E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.597E-05	1.474E-04
SOURCE #	37	8.550E-05	8.550E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.506E-05	8.550E-05

SOURCE #	38	8.175E-06	8.175E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.440E-06	8.175E-06
SOURCE #	39	8.525E-06	8.525E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.502E-06	8.525E-06
SOURCE #	40	1.351E-05	1.351E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.380E-06	1.351E-05
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	2.769E-03	2.769E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.892E-04	2.769E-03

POLLUTANT BENZE ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 7.100E+01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Be ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 4.800E-03 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 5.000E-03

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.364E-05	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.239E-05	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.690E-05	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.872E-05	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.452E-06	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.505E-06	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.974E-06	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.461E-06	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.303E-06	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.780E-06	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.427E-06	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.499E-06	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.687E-04	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.130E-04	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.880E-04	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.507E-04	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.797E-05	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.333E-04	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.203E-06	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.562E-06	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.498E-06	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.548E-06	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.295E-06	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.389E-06	0.000E+00

SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.480E-04	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.833E-05	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.281E-05	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.003E-06	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.068E-06	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.233E-06	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.822E-06	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.995E-06	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.689E-07	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.832E-07	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.038E-07	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.914E-06	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.751E-06	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.497E-07	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.735E-07	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.085E-07	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.566E-03	0.000E+00

POLLUTANT Cd ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.500E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 1.000E-03

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	5.958E-07	0.000E+00	0.000E+00	1.211E-08	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	3.965E-07	0.000E+00	0.000E+00	8.059E-09	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	4.765E-07	0.000E+00	0.000E+00	9.686E-09	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	6.858E-07	0.000E+00	0.000E+00	1.394E-08	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	9.657E-08	0.000E+00	0.000E+00	1.963E-09	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	1.684E-07	0.000E+00	0.000E+00	3.422E-09	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	5.221E-08	0.000E+00	0.000E+00	1.061E-09	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	7.833E-08	0.000E+00	0.000E+00	1.592E-09	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	7.556E-08	0.000E+00	0.000E+00	1.536E-09	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	8.397E-08	0.000E+00	0.000E+00	1.707E-09	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	2.507E-08	0.000E+00	0.000E+00	5.096E-10	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	2.633E-08	0.000E+00	0.000E+00	5.352E-10	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	8.301E-06	0.000E+00	0.000E+00	1.687E-07	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	5.545E-06	0.000E+00	0.000E+00	1.127E-07	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	6.873E-06	0.000E+00	0.000E+00	1.397E-07	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	9.751E-06	0.000E+00	0.000E+00	1.982E-07	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	1.381E-06	0.000E+00	0.000E+00	2.807E-08	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	2.361E-06	0.000E+00	0.000E+00	4.800E-08	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	5.445E-06	0.000E+00	0.000E+00	1.107E-07	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	3.692E-06	0.000E+00	0.000E+00	7.504E-08	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	3.651E-06	0.000E+00	0.000E+00	7.420E-08	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	5.675E-06	0.000E+00	0.000E+00	1.153E-07	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	8.600E-07	0.000E+00	0.000E+00	1.748E-08	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	1.587E-06	0.000E+00	0.000E+00	3.225E-08	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	2.869E-07	0.000E+00	0.000E+00	1.415E-08	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	2.545E-05	0.000E+00	0.000E+00	5.173E-07	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	1.514E-05	0.000E+00	0.000E+00	3.078E-07	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	1.330E-06	0.000E+00	0.000E+00	2.703E-08	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	1.373E-06	0.000E+00	0.000E+00	2.790E-08	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	2.147E-06	0.000E+00	0.000E+00	4.364E-08	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	4.529E-06	0.000E+00	0.000E+00	9.206E-08	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	2.652E-06	0.000E+00	0.000E+00	5.390E-08	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	2.450E-07	0.000E+00	0.000E+00	4.980E-09	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	2.544E-07	0.000E+00	0.000E+00	5.171E-09	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	4.009E-07	0.000E+00	0.000E+00	8.150E-09	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	6.583E-06	0.000E+00	0.000E+00	1.338E-07	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	3.817E-06	0.000E+00	0.000E+00	7.758E-08	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	3.649E-07	0.000E+00	0.000E+00	7.418E-09	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	3.808E-07	0.000E+00	0.000E+00	7.741E-09	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	6.034E-07	0.000E+00	0.000E+00	1.226E-08	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	5.805E-07	0.000E+00	0.000E+00	2.862E-08	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	1.240E-04	0.000E+00	0.000E+00	2.546E-06	0.000E+00

POLLUTANT Cr ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.000E-03 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 5.000E-03

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	3.849E-06	3.849E-06	0.000E+00	3.832E-06	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	2.561E-06	2.561E-06	0.000E+00	2.550E-06	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	3.078E-06	3.078E-06	0.000E+00	3.065E-06	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	4.430E-06	4.430E-06	0.000E+00	4.412E-06	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	6.238E-07	6.238E-07	0.000E+00	6.211E-07	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	1.088E-06	1.088E-06	0.000E+00	1.083E-06	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	3.377E-07	3.377E-07	0.000E+00	3.362E-07	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	5.066E-07	5.066E-07	0.000E+00	5.045E-07	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	4.885E-07	4.885E-07	0.000E+00	4.864E-07	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	5.428E-07	5.428E-07	0.000E+00	5.405E-07	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	1.621E-07	1.621E-07	0.000E+00	1.614E-07	0.000E+00

SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	1.702E-07	1.702E-07	0.000E+00	1.695E-07	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	5.362E-05	5.362E-05	0.000E+00	5.339E-05	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	3.581E-05	3.581E-05	0.000E+00	3.566E-05	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	4.440E-05	4.440E-05	0.000E+00	4.421E-05	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	6.301E-05	6.301E-05	0.000E+00	6.275E-05	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	8.921E-06	8.921E-06	0.000E+00	8.883E-06	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	1.525E-05	1.525E-05	0.000E+00	1.519E-05	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	3.163E-05	3.163E-05	0.000E+00	3.150E-05	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	2.145E-05	2.145E-05	0.000E+00	2.136E-05	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	2.120E-05	2.120E-05	0.000E+00	2.111E-05	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	3.296E-05	3.296E-05	0.000E+00	3.282E-05	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	4.994E-06	4.994E-06	0.000E+00	4.973E-06	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	9.215E-06	9.215E-06	0.000E+00	9.177E-06	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	8.133E-06	8.133E-06	0.000E+00	8.120E-06	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	1.478E-04	1.478E-04	0.000E+00	1.472E-04	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	8.796E-05	8.796E-05	0.000E+00	8.759E-05	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	7.723E-06	7.723E-06	0.000E+00	7.691E-06	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	7.973E-06	7.973E-06	0.000E+00	7.940E-06	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	1.247E-05	1.247E-05	0.000E+00	1.241E-05	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	2.630E-05	2.630E-05	0.000E+00	2.619E-05	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	1.541E-05	1.541E-05	0.000E+00	1.534E-05	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	1.423E-06	1.423E-06	0.000E+00	1.417E-06	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	1.478E-06	1.478E-06	0.000E+00	1.472E-06	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	2.328E-06	2.328E-06	0.000E+00	2.318E-06	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	3.823E-05	3.823E-05	0.000E+00	3.807E-05	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	2.217E-05	2.217E-05	0.000E+00	2.208E-05	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	2.120E-06	2.120E-06	0.000E+00	2.112E-06	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	2.211E-06	2.211E-06	0.000E+00	2.202E-06	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	3.504E-06	3.504E-06	0.000E+00	3.490E-06	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	4.752E-07	4.752E-07	0.000E+00	4.744E-07	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	7.480E-04	7.480E-04	0.000E+00	7.449E-04	0.000E+00

POLLUTANT Cu ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.400E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.135E-08	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.752E-08	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.307E-08	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.761E-08	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.701E-09	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.168E-08	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.624E-09	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.437E-09	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.245E-09	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.826E-09	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.740E-09	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.827E-09	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.760E-07	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.848E-07	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.769E-07	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.770E-07	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.584E-08	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.638E-07	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.753E-07	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.545E-07	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.515E-07	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.911E-07	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.927E-08	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.094E-07	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.098E-08	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.754E-06	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.044E-06	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.165E-08	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.464E-08	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.479E-07	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.122E-07	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.829E-07	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.689E-08	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.753E-08	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.763E-08	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.537E-07	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.631E-07	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.516E-08	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.624E-08	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.158E-08	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.557E-06	0.000E+00

POLLUTANT HCHO ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.600E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT HCN   ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 7.000E+01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	41	0.000E+00	2.447E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	4.489E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	4.718E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	0.000E+00	4.734E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Pb ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 1.500E+00 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 4.300E-04

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	5.638E-06	5.638E-06	5.638E-06	5.638E-06	0.000E+00	5.638E-06	0.000E+00	0.000E+00
SOURCE #	2	3.752E-06	3.752E-06	3.752E-06	3.752E-06	0.000E+00	3.752E-06	0.000E+00	0.000E+00
SOURCE #	3	4.509E-06	4.509E-06	4.509E-06	4.509E-06	0.000E+00	4.509E-06	0.000E+00	0.000E+00
SOURCE #	4	6.490E-06	6.490E-06	6.490E-06	6.490E-06	0.000E+00	6.490E-06	0.000E+00	0.000E+00
SOURCE #	5	9.139E-07	9.139E-07	9.139E-07	9.139E-07	0.000E+00	9.139E-07	0.000E+00	0.000E+00
SOURCE #	6	1.593E-06	1.593E-06	1.593E-06	1.593E-06	0.000E+00	1.593E-06	0.000E+00	0.000E+00
SOURCE #	7	4.953E-07	4.953E-07	4.953E-07	4.953E-07	0.000E+00	4.953E-07	0.000E+00	0.000E+00
SOURCE #	8	7.432E-07	7.432E-07	7.432E-07	7.432E-07	0.000E+00	7.432E-07	0.000E+00	0.000E+00
SOURCE #	9	7.167E-07	7.167E-07	7.167E-07	7.167E-07	0.000E+00	7.167E-07	0.000E+00	0.000E+00
SOURCE #	10	7.965E-07	7.965E-07	7.965E-07	7.965E-07	0.000E+00	7.965E-07	0.000E+00	0.000E+00
SOURCE #	11	2.377E-07	2.377E-07	2.377E-07	2.377E-07	0.000E+00	2.377E-07	0.000E+00	0.000E+00
SOURCE #	12	2.497E-07	2.497E-07	2.497E-07	2.497E-07	0.000E+00	2.497E-07	0.000E+00	0.000E+00
SOURCE #	13	7.852E-05	7.852E-05	7.852E-05	7.852E-05	0.000E+00	7.852E-05	0.000E+00	0.000E+00
SOURCE #	14	5.245E-05	5.245E-05	5.245E-05	5.245E-05	0.000E+00	5.245E-05	0.000E+00	0.000E+00
SOURCE #	15	6.504E-05	6.504E-05	6.504E-05	6.504E-05	0.000E+00	6.504E-05	0.000E+00	0.000E+00
SOURCE #	16	9.229E-05	9.229E-05	9.229E-05	9.229E-05	0.000E+00	9.229E-05	0.000E+00	0.000E+00
SOURCE #	17	1.307E-05	1.307E-05	1.307E-05	1.307E-05	0.000E+00	1.307E-05	0.000E+00	0.000E+00
SOURCE #	18	2.234E-05	2.234E-05	2.234E-05	2.234E-05	0.000E+00	2.234E-05	0.000E+00	0.000E+00
SOURCE #	19	3.688E-05	3.688E-05	3.688E-05	3.688E-05	0.000E+00	3.688E-05	0.000E+00	0.000E+00
SOURCE #	20	2.500E-05	2.500E-05	2.500E-05	2.500E-05	0.000E+00	2.500E-05	0.000E+00	0.000E+00
SOURCE #	21	2.472E-05	2.472E-05	2.472E-05	2.472E-05	0.000E+00	2.472E-05	0.000E+00	0.000E+00
SOURCE #	22	3.842E-05	3.842E-05	3.842E-05	3.842E-05	0.000E+00	3.842E-05	0.000E+00	0.000E+00
SOURCE #	23	5.822E-06	5.822E-06	5.822E-06	5.822E-06	0.000E+00	5.822E-06	0.000E+00	0.000E+00
SOURCE #	24	1.074E-05	1.074E-05	1.074E-05	1.074E-05	0.000E+00	1.074E-05	0.000E+00	0.000E+00
SOURCE #	25	9.064E-06	9.064E-06	9.064E-06	9.064E-06	0.000E+00	9.064E-06	0.000E+00	0.000E+00
SOURCE #	26	1.724E-04	1.724E-04	1.724E-04	1.724E-04	0.000E+00	1.724E-04	0.000E+00	0.000E+00
SOURCE #	27	1.025E-04	1.025E-04	1.025E-04	1.025E-04	0.000E+00	1.025E-04	0.000E+00	0.000E+00
SOURCE #	28	9.003E-06	9.003E-06	9.003E-06	9.003E-06	0.000E+00	9.003E-06	0.000E+00	0.000E+00
SOURCE #	29	9.293E-06	9.293E-06	9.293E-06	9.293E-06	0.000E+00	9.293E-06	0.000E+00	0.000E+00
SOURCE #	30	1.453E-05	1.453E-05	1.453E-05	1.453E-05	0.000E+00	1.453E-05	0.000E+00	0.000E+00
SOURCE #	31	3.066E-05	3.066E-05	3.066E-05	3.066E-05	0.000E+00	3.066E-05	0.000E+00	0.000E+00
SOURCE #	32	1.796E-05	1.796E-05	1.796E-05	1.796E-05	0.000E+00	1.796E-05	0.000E+00	0.000E+00
SOURCE #	33	1.659E-06	1.659E-06	1.659E-06	1.659E-06	0.000E+00	1.659E-06	0.000E+00	0.000E+00
SOURCE #	34	1.723E-06	1.723E-06	1.723E-06	1.723E-06	0.000E+00	1.723E-06	0.000E+00	0.000E+00
SOURCE #	35	2.714E-06	2.714E-06	2.714E-06	2.714E-06	0.000E+00	2.714E-06	0.000E+00	0.000E+00
SOURCE #	36	4.458E-05	4.458E-05	4.458E-05	4.458E-05	0.000E+00	4.458E-05	0.000E+00	0.000E+00
SOURCE #	37	2.585E-05	2.585E-05	2.585E-05	2.585E-05	0.000E+00	2.585E-05	0.000E+00	0.000E+00
SOURCE #	38	2.471E-06	2.471E-06	2.471E-06	2.471E-06	0.000E+00	2.471E-06	0.000E+00	0.000E+00
SOURCE #	39	2.577E-06	2.577E-06	2.577E-06	2.577E-06	0.000E+00	2.577E-06	0.000E+00	0.000E+00
SOURCE #	40	4.085E-06	4.085E-06	4.085E-06	4.085E-06	0.000E+00	4.085E-06	0.000E+00	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	9.425E-04	9.425E-04	9.425E-04	9.425E-04	0.000E+00	9.425E-04	0.000E+00	0.000E+00

POLLUTANT Mn ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 4.000E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	3.001E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.001E-06	0.000E+00
SOURCE #	2	0.000E+00	1.997E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.997E-06	0.000E+00
SOURCE #	3	0.000E+00	2.400E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.400E-06	0.000E+00
SOURCE #	4	0.000E+00	3.454E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.454E-06	0.000E+00
SOURCE #	5	0.000E+00	4.863E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.863E-07	0.000E+00
SOURCE #	6	0.000E+00	8.479E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.479E-07	0.000E+00
SOURCE #	7	0.000E+00	2.633E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.633E-07	0.000E+00
SOURCE #	8	0.000E+00	3.950E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.950E-07	0.000E+00
SOURCE #	9	0.000E+00	3.809E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.809E-07	0.000E+00
SOURCE #	10	0.000E+00	4.231E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.231E-07	0.000E+00
SOURCE #	11	0.000E+00	1.264E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.264E-07	0.000E+00
SOURCE #	12	0.000E+00	1.327E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.327E-07	0.000E+00
SOURCE #	13	0.000E+00	4.181E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.181E-05	0.000E+00
SOURCE #	14	0.000E+00	2.792E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.792E-05	0.000E+00
SOURCE #	15	0.000E+00	3.462E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.462E-05	0.000E+00
SOURCE #	16	0.000E+00	4.912E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.912E-05	0.000E+00
SOURCE #	17	0.000E+00	6.956E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.956E-06	0.000E+00
SOURCE #	18	0.000E+00	1.189E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.189E-05	0.000E+00
SOURCE #	19	0.000E+00	2.466E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.466E-05	0.000E+00
SOURCE #	20	0.000E+00	1.672E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.672E-05	0.000E+00
SOURCE #	21	0.000E+00	1.654E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.654E-05	0.000E+00
SOURCE #	22	0.000E+00	2.569E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.569E-05	0.000E+00
SOURCE #	23	0.000E+00	3.894E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.894E-06	0.000E+00
SOURCE #	24	0.000E+00	7.185E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.185E-06	0.000E+00
SOURCE #	25	0.000E+00	6.358E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.358E-06	0.000E+00
SOURCE #	26	0.000E+00	1.152E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.152E-04	0.000E+00
SOURCE #	27	0.000E+00	6.859E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.859E-05	0.000E+00

SOURCE # 28	0.000E+00	6.022E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.022E-06	0.000E+00
SOURCE # 29	0.000E+00	6.217E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.217E-06	0.000E+00
SOURCE # 30	0.000E+00	9.721E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.721E-06	0.000E+00
SOURCE # 31	0.000E+00	2.051E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.051E-05	0.000E+00
SOURCE # 32	0.000E+00	1.201E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.201E-05	0.000E+00
SOURCE # 33	0.000E+00	1.109E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.109E-06	0.000E+00
SOURCE # 34	0.000E+00	1.152E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.152E-06	0.000E+00
SOURCE # 35	0.000E+00	1.816E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.816E-06	0.000E+00
SOURCE # 36	0.000E+00	2.982E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.982E-05	0.000E+00
SOURCE # 37	0.000E+00	1.729E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.729E-05	0.000E+00
SOURCE # 38	0.000E+00	1.653E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.653E-06	0.000E+00
SOURCE # 39	0.000E+00	1.724E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.724E-06	0.000E+00
SOURCE # 40	0.000E+00	2.732E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.732E-06	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	5.829E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.829E-04	0.000E+00

POLLUTANT Hg ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.000E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 3.000E-04

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Ni ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.400E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	1.495E-07	1.495E-07	0.000E+00	0.000E+00	1.495E-07	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	9.948E-08	9.948E-08	0.000E+00	0.000E+00	9.948E-08	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	1.195E-07	1.195E-07	0.000E+00	0.000E+00	1.195E-07	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	1.720E-07	1.720E-07	0.000E+00	0.000E+00	1.720E-07	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	2.422E-08	2.422E-08	0.000E+00	0.000E+00	2.422E-08	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	4.224E-08	4.224E-08	0.000E+00	0.000E+00	4.224E-08	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	1.311E-08	1.311E-08	0.000E+00	0.000E+00	1.311E-08	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	1.967E-08	1.967E-08	0.000E+00	0.000E+00	1.967E-08	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	1.898E-08	1.898E-08	0.000E+00	0.000E+00	1.898E-08	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	2.109E-08	2.109E-08	0.000E+00	0.000E+00	2.109E-08	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	6.298E-09	6.298E-09	0.000E+00	0.000E+00	6.298E-09	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	6.614E-09	6.614E-09	0.000E+00	0.000E+00	6.614E-09	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	2.082E-06	2.082E-06	0.000E+00	0.000E+00	2.082E-06	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	1.391E-06	1.391E-06	0.000E+00	0.000E+00	1.391E-06	0.000E+00

SOURCE # 15	0.000E+00	0.000E+00	1.724E-06	1.724E-06	0.000E+00	0.000E+00	1.724E-06	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	2.447E-06	2.447E-06	0.000E+00	0.000E+00	2.447E-06	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	3.464E-07	3.464E-07	0.000E+00	0.000E+00	3.464E-07	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	5.922E-07	5.922E-07	0.000E+00	0.000E+00	5.922E-07	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	1.194E-06	1.194E-06	0.000E+00	0.000E+00	1.194E-06	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	8.098E-07	8.098E-07	0.000E+00	0.000E+00	8.098E-07	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	8.006E-07	8.006E-07	0.000E+00	0.000E+00	8.006E-07	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	1.244E-06	1.244E-06	0.000E+00	0.000E+00	1.244E-06	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	1.886E-07	1.886E-07	0.000E+00	0.000E+00	1.886E-07	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	3.480E-07	3.480E-07	0.000E+00	0.000E+00	3.480E-07	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	3.518E-07	3.518E-07	0.000E+00	0.000E+00	3.518E-07	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	5.580E-06	5.580E-06	0.000E+00	0.000E+00	5.580E-06	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	3.321E-06	3.321E-06	0.000E+00	0.000E+00	3.321E-06	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	2.916E-07	2.916E-07	0.000E+00	0.000E+00	2.916E-07	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	3.010E-07	3.010E-07	0.000E+00	0.000E+00	3.010E-07	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	4.708E-07	4.708E-07	0.000E+00	0.000E+00	4.708E-07	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	9.934E-07	9.934E-07	0.000E+00	0.000E+00	9.934E-07	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	5.816E-07	5.816E-07	0.000E+00	0.000E+00	5.816E-07	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	5.372E-08	5.372E-08	0.000E+00	0.000E+00	5.372E-08	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	5.579E-08	5.579E-08	0.000E+00	0.000E+00	5.579E-08	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	8.791E-08	8.791E-08	0.000E+00	0.000E+00	8.791E-08	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	1.444E-06	1.444E-06	0.000E+00	0.000E+00	1.444E-06	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	8.374E-07	8.374E-07	0.000E+00	0.000E+00	8.374E-07	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	8.004E-08	8.004E-08	0.000E+00	0.000E+00	8.004E-08	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	8.349E-08	8.349E-08	0.000E+00	0.000E+00	8.349E-08	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	1.323E-07	1.323E-07	0.000E+00	0.000E+00	1.323E-07	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	2.853E-05	2.853E-05	0.000E+00	0.000E+00	2.853E-05	0.000E+00

POLLUTANT NAPTH   ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 1.400E+01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 4.000E-03

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Se   ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 5.000E-01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT TOL ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 2.000E+02 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

		CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE #	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT XYLEN ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.000E+02 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 6	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 7	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 8	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 9	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 36	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 37	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 38	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 39	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SOURCE # 46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SUM =	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

POLLUTANT Zn ACCEPTABLE EXPOSURE LEVEL (ug/m3) = 3.500E+01 BACKG. (ug/m3) = 0.000E+00 ORAL DOSE (mg/kg-d) = 0.000E+00

	CV	CNS	IMMUN	KIDN	LIVER	REPRO	RESP	SKIN
SOURCE # 1	4.331E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.331E-09	0.000E+00
SOURCE # 2	2.882E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.882E-09	0.000E+00
SOURCE # 3	3.464E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.464E-09	0.000E+00
SOURCE # 4	4.984E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.984E-09	0.000E+00
SOURCE # 5	7.018E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.018E-10	0.000E+00
SOURCE # 6	1.224E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.224E-09	0.000E+00
SOURCE # 7	3.796E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.796E-10	0.000E+00
SOURCE # 8	5.695E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.695E-10	0.000E+00
SOURCE # 9	5.493E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.493E-10	0.000E+00
SOURCE # 10	6.102E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.102E-10	0.000E+00
SOURCE # 11	1.822E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.822E-10	0.000E+00
SOURCE # 12	1.914E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.914E-10	0.000E+00
SOURCE # 13	6.033E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.033E-08	0.000E+00
SOURCE # 14	4.030E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.030E-08	0.000E+00
SOURCE # 15	4.996E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.996E-08	0.000E+00
SOURCE # 16	7.089E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.089E-08	0.000E+00
SOURCE # 17	1.003E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.003E-08	0.000E+00
SOURCE # 18	1.715E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.715E-08	0.000E+00
SOURCE # 19	3.933E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.933E-08	0.000E+00
SOURCE # 20	2.667E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.667E-08	0.000E+00
SOURCE # 21	2.635E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.635E-08	0.000E+00
SOURCE # 22	4.098E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.098E-08	0.000E+00
SOURCE # 23	6.210E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.210E-09	0.000E+00
SOURCE # 24	1.146E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.146E-08	0.000E+00
SOURCE # 25	5.318E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.318E-09	0.000E+00
SOURCE # 26	1.838E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.838E-07	0.000E+00
SOURCE # 27	1.094E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.094E-07	0.000E+00
SOURCE # 28	9.602E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.602E-09	0.000E+00
SOURCE # 29	9.912E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.912E-09	0.000E+00
SOURCE # 30	1.550E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.550E-08	0.000E+00

URCE #	31	3.271E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.271E-08	0.000E+00
URCE #	32	1.916E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.916E-08	0.000E+00
URCE #	33	1.769E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.769E-09	0.000E+00
URCE #	34	1.837E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.837E-09	0.000E+00
URCE #	35	2.895E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.895E-09	0.000E+00
URCE #	36	4.754E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.754E-08	0.000E+00
URCE #	37	2.757E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.757E-08	0.000E+00
URCE #	38	2.636E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.636E-09	0.000E+00
URCE #	39	2.749E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.749E-09	0.000E+00
URCE #	40	4.356E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.356E-09	0.000E+00
URCE #	41	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	45	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
URCE #	46	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	SUM =	8.965E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.965E-07	0.000E+00

*** SUMMARY OF MAXIMUM PREDICTED RISKS ***

CANCER RISK ASSESSMENT

SIGNIFICANT RISK LEVEL = 1.000E-06
IMPACT ZONE RISK LEVEL = 1.000E-07
MAXIMUM PEAK RISK = 2.621E-05
PREDICTED AT RECEPTOR # 68
TOTAL EXCESS BURDEN = 0.000E+00

351 RECEPTORS WITH RISK EXCEEDING SIGNIFICANT RISK LEVEL OF 1.000E-06

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	214	215	216
217	218	219	220	221	222	223	224	225	226
233	234	235	236	237	238	239	240	241	242
243	244	245	251	252	253	254	255	256	257
258	259	260	261	262	263	264	270	271	272
273	274	275	276	277	278	279	280	281	282
283	289	290	291	292	293	294	295	296	302
303	304	305	306	307	308	315	316	317	318
319	320	327	328	329	330	331	332	340	341
342	343	344	345	353	354	355	356	357	358
367	368	369	370	371	372	373	383	384	385
386	387	388	389	390	391	392	402	403	404
405	406	407	408	409	410	411	425	428	429
430	431	432	433	434	435	436	437	438	439
440	441	442	443	444	445	446	447	448	449
450									

ACUTE EXPOSURE TO NON-CANCER POLLUTANTS

SIGNIFICANT HAZARD INDEX = 0.5000
MAXIMUM HAZARD INDEX FOR AN ENDPOINT = 0.0137
PREDICTED AT RECEPTOR # 34

0 RECEPTORS WITH HAZARD INDEX .GE. 0.5000 FOR ONE OR MORE TOXICOLOGICAL ENDPOINTS

CHRONIC EXPOSURE TO NON-CANCER POLLUTANTS

SIGNIFICANT HAZARD INDEX =	0.5000
MAXIMUM HAZARD INDEX FOR AN ENDPOINT =	0.0516
PREDICTED AT RECEPTOR #	87

0 RECEPTORS WITH HAZARD INDEX .GE. 0.5000 FOR ONE OR MORE TOXICOLOGICAL ENDPOINTS

*** END OF ACE2588 SIMULATION ***