Phase I Environmental Site Assessment Cloverdale High School Stadium Improvement Project Cloverdale, California

APPENDIX C

Prepared for:

Cloverdale Unified School District

509 North Cloverdale Boulevard Cloverdale, California 95425

Prepared by:



OCTOBER 2019

CLOVERDALE SCHOOLS CLOVERDALE, CALIFORNIA

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HAZARDOUS MATERIALS

REPORT OF UNDERGROUND TANK INVESTIGATIONS CLOVERDALE SCHOOLS CLOVERDALE, CALIFORNIA

Prepared for:

CLOVERDALE UNIFIED SCHOOL DISTRICT Dr. Donald Sato, Superintendent 97 School Street Cloverdale, California 95425

Prepared by:

Environmental Services Division 3000 Cleveland Avenue, Suite 200 Santa Rosa, California 95403 (707) 523-3880

HERZOG ASSOCIATES

Job Number 15198.1-0-7

January 22, 1990

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Herzog Associates

Geoscientists

3000 Cleveland Avenue, Suite 200 Santa Rosa, California 95403 Tel (707) 523-3880 Fax (707) 523-3904

January 23, 1990 Job Number 15198.1-0-7



Cloverdale Unified School District 97 School Street Cloverdale, California 95425

Attention: Dr. Donald Sato

RE: Report of

Underground Tank Investigations

Cloverdale Schools Cloverdale, California

Dear Dr. Sato:

Herzog Associates (Herzog) is pleased to present this report of our preliminary investigations at Washington Street Elementary School and Cloverdale High School in Cloverdale, California. The purpose of our investigations was to explore the potential for subsurface soil and/or groundwater contamination which may have resulted from previously removed underground petroleum storage tanks at the two sites.

Analytical results of soil and groundwater samples collected at the two sites indicate the following:

Washington Elementary - Low levels of motor oil were detected in the soil sample analyzed from Monitoring Well (MW) 2. No petroleum hydrocarbon analytes were detected in any other soil samples or in any of the groundwater samples.

Cloverdale High Moderate levels of Total Petroleum Hydrocarbons, as gasoline-and as diesel, were detected in the soil sample from MW-6. Low levels of the same constituents were detected in the groundwater sample from MW-6. No other petroleum hydrocarbon compounds were detected in any of the other soil or groundwater samples.

Soil Pile - Low to moderate concentrations of petroleum compounds were detected in the soil pile composed of spoils from both the Washington Elementary and the Cloverdale High School excavation pits.

Cloverdale Schools Job Number 15198.1-0-7 Page 2 - January 23, 1990

The North Coast Regional Water Quality Control Board (Board) will likely require further investigation at these sites. After the Board has reviewed this report and provided comments, Herzog can prepare a Work Plan for additional investigation, if so requested.

If you have any questions regarding this project or the work performed, please do not hesitate to call either of the undersigned at (707) 523-3880. It has been a pleasure to be of service to you.

Yours very truly,

HERZOG ASSOCIATES

Environmental Services Division

Marc W. Seeley, CEG, REA

Division Manager

Lisa A. Havens Staff Geologist

MWS:clm (7805.93)

Attachment: Report (3)

cc: Ms. Susan Warner
North Coast Regional Water Quality Control Board
1440 Guerneville Road
Santa Rosa, CA 95403

Mr. Jeff Lewin Sonoma County Hazardous Materials Management Program 2435 Professional Drive, Suite A Santa Rosa, CA 95403

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INTRODUCTION

This report presents the results and methods of Herzog Associate's (Herzog's) investigations at Washington Street Elementary School and Cloverdale High School of the Cloverdale Unified School District in Cloverdale, California (see Plate 1, Location Map). The work was done in accordance with the terms of our Technical Services Agreement dated February 22, 1989 and our Work Plan Addendum dated March 14, 1989.

The objectives of this project were to:

- 1) evaluate the local geology and ground water;
- drill and install three groundwater monitoring wells at each site;
- a) evaluate whether discreet samples of soil and ground water at selected locations beneath the subject sites contain gasoline, diesel fuel, or selected heavy metal constituents;



- 4) survey monitoring wells on site and determine the ground water gradient at each site;
- 5) sample the excavation spoils pile from both tank pits and analyze for petroleum constituents;
- 6) evaluate the information obtained and prepare this report.

Previous Investigation

Herzog previously performed sampling procedures at both Washington Elementary and Cloverdale High School during tank excavation and removal procedures. On July 28, 1986 a 1,000-gallon gasoline tank was removed from Washington Elementary. We understand this tank may have stored heavy petroleum hydrocarbons at one time. Two soil samples collected from the excavation were analyzed. The analysis revealed the samples contained less than 10 mg/kg or parts per million (ppm) each of Total Petroleum Hydrocarbons (TPH) as gasoline and as diesel. A water sample collected from the excavation was analyzed and found to contain 16 ppm of TPH as gasoline. The groundwater in the excavation was



subsequently pumped out and disposed of under EPA manifest.

On July 17, 1986 one 1,000-gallon diesel tank and one 350-gallon gasoline tank were removed from Cloverdale High School. Two soil samples collected from beneath the diesel tank were analyzed and found to have concentrations of TPH as diesel at 620 and 730 ppm. One soil sample collected from beneath the gasoline tank was analyzed and found to have TPH as gasoline at a concentration of 880 ppm. Then on July 28, 1986 an additional 5-1/2 feet of soil was removed from the base of the excavation and stockpiled. Two additional soil samples were collected from beneath the diesel tank. Analysis of these samples revealed TPH as diesel at 31 ppm and less than 10 ppm respectively. One additional soil sample was collected from beneath the gasoline tank. Analysis of these samples revealed TPH as gasoline at 800 ppm. The North Coast Regional Water Quality Control Board requested further investigation of the two sites.



INVESTIGATION METHODS AND FIELD PROCEDURES

Well Drilling - A total of six groundwater monitoring wells were installed for the Cloverdale Unified School District. Three wells were installed at Washington Street Elementary School: MW-1, MW-2 and MW-3 (see Plate 2, Site Plan of Washington Elementary for well locations). Three wells were also installed at Cloverdale High School: MW-4, MW-5 and MW-6 (see Plate 3, Site Plan of Cloverdale High).

The first two wells, MW-1 and MW-2 at Washington Elementary, were drilled on September 18 and 19, 1989 by RNL Enterprises (RNL) of Dillon Beach, California. RNL used a Mobile B-53 auger drill rig equipped with 12 inch outer-diameter hollow-stem augers. The boreholes were drilled with clean auger flights. Auger flights were cleaned between borings by steam cleaning on site. Well MW-1 was drilled to a depth of 40 feet (see Plate 4 for boring log), with groundwater encountered at a depth of approximately 25 feet below the existing ground surface on the date of drilling (September 18, 1989). Well MW-2 was drilled to a depth of 15 feet (see boring log, Plate 5), with groundwater encountered at a depth of about 6 feet below the ground surface.



Wells MW-3 through MW-6 were drilled by Weeks Drilling and Pump Company (Weeks) of Sebastopol, California on October 16, 17 and 18, 1989. Weeks used a Mobile B-53 auger drill rig equipped with 12 inch outer-diameter hollow-stem augers. The boreholes were drilled with clean auger flights. Auger flights were cleaned between borings by steam cleaning on site.

Well MW-3 was drilled at Washington Elementary to a depth of 15 feet (see boring log, Plate 6). Groundwater was encountered at a depth of approximately 8 feet below the ground surface.

Wells MW-4, MW-5 and MW-6 were installed by Weeks at Cloverdale High School. The wells were drilled to depths of 20 feet, 25 feet and 20 feet, respectively. In the boring of MW-4, water was first encountered at a depth of approximately 17 feet below the ground surface. Water was first encountered at similar levels in MW-5 and MW-6. Boring logs are presented on Plates 7, 8 and 9.

<u>Soil Sampling</u> - Concurrent with well drilling, subsurface soil samples were obtained at approximately 5 foot intervals throughout the depth of the borings. Samples were obtained with a Modified California Sampler equipped with six-inch long



stainless steel or brass liners ("sample tubes"). The sampler and liners were precleaned prior to use and between uses by washing them with trisodium phosphate (TSP) mixed with potable water, followed by a potable water rinse, and finally a distilled water rinse.

The subsurface soil samples were obtained by drilling five feet, then driving the sampler eighteen inches into undisturbed material. The middle tube of the drive sampler was generally retained for analysis. The sample tube ends were covered with aluminum foil, and pre-cleaned plastic caps were taped to the ends of the tubes. The samples were then labeled, sealed in plastic bags, and stored in an ice-filled cooler. The samples were transported to National Environmental Testing Laboratory (NET) of Santa Rosa, California, and placed in refrigerated storage. Chain-of-custody protocol was maintained; forms are attached in Appendix A.

The soil cuttings and drive samples were logged by a Herzog geologist during drilling operations. The soils are described on the boring logs in accordance with the Unified Soil Classification System, presented on Plate 10. Soil cuttings were stored on site in covered 55-gallon drums pending the results of soil chemical analyses.



During drilling, soil samples were also obtained for gas chromatograph (GC) analysis. These samples were later analyzed using Herzog's portable GC. The sampling procedure consisted of placing approximately 15 mL of soil into clean, labelled 40 mL Volatile Organic Analysis (VOA) vials containing 20 mL of distilled water. These containers were sealed in plastic bags and kept on ice, transported to Herzog's laboratory and refrigerated. The samples were analyzed by the headspace method using the GC on September 21, 1989 (for MW-1 and MW-2 samples) and October 19 and 20, 1989 (for MW-3 through MW-6 samples).

The results of the GC analyses are presented in Appendix A. These results were used to evaluate which samples to submit to the laboratory for chemical analysis. As a result of the GC analyses, the following soil samples were submitted to NET for analysis: MW-1 at 30.0 feet, MW-2 at 10.0 feet, MW-3 at 11.0 feet, MW-4 at 15.5 feet, MW-5 at 15.5 feet, and MW-6 at 5.5 feet. The soil samples were submitted for quantitative analysis of Total Petroleum Hydrocarbons (TPH) as gasoline, as diesel and as motor oil, benzene, toluene, xylene, and ethylbenzene (BTXE), organic lead, and selected heavy metals (Cd, Cr, Pb, Zn).

Two soil samples were also collected from the soil excavation pile located at Cloverdale High School. This soil pile is a composite of soils excavated from both



Washington Elementary and Cloverdale High School's underground tank excavation pits. These samples (SS-1 and SS-2) were composited and analyzed for TPH (as gasoline and as diesel), BTXE, organic lead and selected heavy metals.

Monitoring Well Construction and Development - The monitoring wells were constructed immediately upon the completion of drilling. Well construction details are presented on respective boring logs. The wells were constructed of flush threaded, 4-inch diameter PVC casing and screen, with bottom end caps and locking top caps. Prewashed #3 mesh sand was placed as the screen filter material, extending from the screen base to 1 or more feet above the top of the screen. The annular space was sealed with 2 to 3 feet of bentonite pellets above the sand, and then with neat cement extending to the surface. Christy boxes were cemented over the top of the PVC casings and set level with site grade. A locking cap and lock was placed on each well. The wells were developed after construction to remove loose material from within the well casing. The wells were developed by bailing and/or pumping until relatively clear water was produced. Development water was contained in covered 55-gallon drums on site.

Ground Water Sampling - Ground water samples were collected from each well on October 18, 1989 by a Herzog geologist. Prior to ground water sampling, the depth



to water was measured using an electronic well sounder. The wells were then purged using a pre-cleaned well pump. A minimum of three to five well volumes were removed to purge the wells. The pump was cleaned between wells to minimize the potential for cross contamination.

The water samples were collected using a pre-cleaned teflon bailer. The bailer was cleaned prior to use and between wells with a TSP wash followed by a potable water rinse and a distilled water rinse. After the ground water had recovered to at least 80 percent of its static level, three 40 mL VOA vials (without headspace), two one-liter amber glass bottles, one 500 mL amber glass bottle, and one 500 mL plastic bottle were filled with well water from each well using the teflon bailer. The sample bottles were then labeled and kept on ice until they were submitted to NET later that same day. Chain-of-custody protocol was maintained for the water samples; the chain-of-custody forms are attached in Appendix A. The water samples were analyzed for TPH (as gasoline, as diesel, and as motor oil), BTXE, organic lead, and selected heavy metals (Cd, Cr, Pb, Zn).

Well Elevation Survey - On October 18, 1989, the depth to the ground water surface was measured and recorded for the three existing monitoring wells on each site. On November 29, 1989, the depth to the groundwater surface was again



measured and recorded for the wells at Cloverdale High. The tops of the well casings were then surveyed, and elevations were obtained by a licensed surveyor relative to mean sea level datum (MSL). Table 1 shows the elevations and depth to water for the wells. The results of this survey, and the depth to ground water information, were used to determine the ground water flow direction and gradient for each site.

Our evaluation indicates that on October 18th of this year the groundwater flow at Washington Elementary was generally to the east with a gradient of approximately 0.014 horizontal feet per vertical foot. The groundwater flow at Cloverdale High on the same date was generally to the northeast with a gradient of approximately 0.002 feet per foot. However, on November 29th, the flow direction at the high school site was toward the southeast with a gradient of 0.002 feet per foot.

Our measurements indicate that the elevation of the ground water table may experience seasonal fluctuations, and the flow direction and gradient of the ground water may vary seasonally as well.



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TABLE 1 - WELL ELEVATIONS AND DEPTH TO GROUND WATER DATA

<u>Well</u>	Well Head Elevation (MSL)	Depth to Groundwater Elevations (MSL											
	WASHINGTON ELEMENTARY (10-18-89)												
MW-1	327.18'	5.73' 321.45'											
MW-2	325.14'	5.53'	319.61'										
MW-3	325.03'	5.70'	319.33'										
CLOVERDALE HIGH SCHOOL (10-18-89)													
MW-4	329.86	14.70'	315.16'										
MW-5	330.11'	15.19'	314.92'										
MW-6	330.98'	15.87'	315.11'										
	CLOVERDALE H	IGH SCHOOL (11-29-89)											
MW-4	329.8 6 °	10.50	319.36'										
MW-5	330.11'	10.48 319.63'											
MW-6	330.98"	11.42	319.56'										



ANALYTICAL RESULTS

The results of our analytical sampling program are presented on Table 2. Both soil and groundwater samples were analyzed by NET in their Santa Rosa laboratory.

Copies of the NET laboratory reports are presented in Appendix A.

Washington Elementary

Soil - The results of soil chemical analyses for Washington Street Elementary

School indicate less than detectable concentrations of all petroleum hydrocarbon

constituents analyzed except for motor oil in MW-2. The concentration of motor

oil, as reported by the laboratory, was 38 parts per million (ppm) in the sample

from MW-2 at 10.0 feet. Also detected in that sample was 2.0 ppm Cadmium, 24

ppm Chromium, and 35 ppm Zinc. Analysis of the sample from MW-1 at 30.0 feet

detected 2.4 ppm Cadmium, 44 ppm Chromium, 5 ppm Lead, and 30 ppm Zinc.

MW-3 at 11.0 feet showed 36 ppm Chromium, 25 ppm Lead, and 44 ppm Zinc.

Groundwater - The results of groundwater chemical analyses indicate less than detectable concentrations of all petroleum hydrocarbon constituents analyzed.

Water from MW-2 showed 0.02 ppm Cadmium; no other heavy metals tested for



were detected in any of the samples.

Cloverdale High

Soil - The results of soil chemical analyses for Cloverdale High School indicate that no petroleum compounds were detected in either MW-4 or MW-5. Heavy metal analyses revealed 6 ppm Cadmium, 43 ppm Chromium, 20 ppm Lead, and 49 ppm Zinc in MW-4 at 15.5 feet. MW-5 at 15.5 feet showed 2 ppm Cadmium, 70 ppm Chromium, 21 ppm Lead, and 53 ppm Zinc. Sample MW-6 at 5.5 feet, however, detected petroleum compounds at 1,700 ppm Total Petroleum Hydrocarbons (TPH) as gasoline and 3,200 ppm TPH as diesel. No other petroleum compounds tested for were detected. Heavy metal analyses for this sample revealed 45 ppm Chromium, 33 ppm Lead, and 42 ppm Zinc.

Groundwater - The results of groundwater chemical analyses indicate non-detectable concentrations of all analytes in MW-4 and MW-5 except Zinc. The concentration of Zinc in MW-4 water was 0.04 ppm, and 0.02 ppm in MW-5 water. Well MW-6, however, showed 1.3 ppm TPH as gasoline and 7.4 ppm TPH as diesel, 0.11 ppm Chromium, and 0.14 ppm Zinc. No other petroleum compounds or heavy metals tested for were detected.



Soil Pile - The soil pile, composed of spoils from both the Washington Elementary and Cloverdale High underground tank excavation pits, was sampled in two localities and at varying depths. Sample SS-1 was collected at approximately 1.0 foot below the surface, and sample SS-2 was collected at approximately 2.0 feet below the surface of the pile. These two samples were composited prior to laboratory analysis. Analytical results of the composite showed 14 ppm TPH as gasoline, 47 ppm TPH as diesel and 150 ppm TPH as motor oil, as well as 68 ppm Chromium, 44 ppm Lead, and 84 ppm Zinc. All other analytes tested for were reported as non detectable.

Summary

Washington Elementary - Low concentrations of petroleum hydrocarbons (motor oil only) were detected in the MW-2 soil sample. Low concentrations of selected heavy metals were detected in soil samples tested from all three borings. Water samples from all three wells showed non-detect for all analytes except for nominal concentrations of Cadmium in MW-2.

Cloverdale High - Moderately high concentrations of TPH as gasoline and as diesel were detected in the MW-6 soil sample. Low concentrations of selected heavy



metals were detected in soil samples tested from all three borings. The water sample from MW-6 showed low concentrations of TPH as gasoline and as diesel, and nominal concentrations of Chromium and Zinc. MW-4 and MW-5 showed nominal concentrations of Zinc only.

Soil Pile - Low to moderate concentrations of TPH as gasoline, diesel and motor oil were detected in the composite soil sample, as well as low concentrations of Chromium, Lead and Zinc.



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Table 2 - Summary of Analytical Results

	TPH- gas <u>ppm</u>	TPH- diesel ppm	TPH- motor oil ppm	Benzene ppb	Toluene ppb	Xylene ppb	Ethyl- benzene ppb	Cd ppm	Cr ppm	Pb ppm	Zn ppm	Org. Lead <u>ppm</u>
Soil Samples												
MW-1 @ 30.0	' ND	ND	ND	ND	ND	ND	ND	2.4	44	5	30	ND
MW-2 @ 10.0	' ND	ND	38	ND	ND	ND	ND	2.0	24	ND	35	ND {}
MW-3 @ 11.0	ND	ND	ND	ND	ND	ND	ND	ND	36	25	44	ND
MW-4 @ 15.5	, ND	ND	ND	ND	ND	ND	ND	6	43	20	49	ND
MW-5@ 15.5	, ND	ND	ND	ND	ND	ND	ND	2	70	21	(53)	ND 4.
MW-6 @ 5.5'	1,700	3,200	ND	ND.	ND	ND	ND	ND	45	33,	42	ND /
SS-1 & SS-2 (composite)	14,	47	150	ND	ND	ND	ND	ND	68	44	84 /	ND
Water Sample	<u>s</u>											
MW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-2	ND	ND	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND G
MW-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ,	0.04	ľ
MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	мD Ŋ,,
MW-6	1.3	7.4 00 pp	ND	ND	ND	ND	ND	ND (0.11	ND	0.14)	ND
ppm = parts	Detected per million per billion						,	pper	, o	s pp	5.0 5.0	ppm

CONCLUSIONS

Washington Elementary - The concentrations of benzene in the soil and groundwater samples from this site were found to be at non-detectable levels at the time of sampling. The selected heavy metals detected in the soil samples are low and appear to represent background levels of these constituents. The source of motor oil detected (at 38 ppm) in the soil sample from MW-2 at 10.0 feet is not clear. We understand that the tank from this area may have stored heavy petroleum hydrocarbons at one time. This well appears to be essentially crossgradient of the former gasoline tank location based on the present gradient measurements. Other possible sources of motor oil include:

- o introduction to the subsurface during drilling and sampling operations,
- o some previously unreported spills or leaks,
- o spillage or leakage during previous subsurface utility excavation or site grading.



The groundwater flow direction at the site was generally easterly on October 18, 1989, with a gradient of 0.014 feet per foot. This will likely vary on a seasonal basis.

Cloverdale High - There were no detectable concentrations of benzene in the soil and groundwater samples from this site at the time of sampling. The selected heavy metals detected in the soil samples again are low and appear to represent background levels of these constituents. Boring/monitoring well MW-6, which is located within 10 feet downgradient of the former tank, was found to contain moderately high levels of TPH as gasoline and as diesel in the soil, and low levels of the same constituents in the groundwater.

The groundwater flow direction at this site was generally toward the northeast on October 18, 1989, with a gradient of 0.002 feet per foot. On November 29, 1989, the groundwater flow was toward the southeast with a similar gradient. This shallow gradient appears to result in a substantial variation in groundwater flow direction beneath the site.

<u>Soil Pile</u> - The soil pile appears to contain low to moderate concentrations of petroleum compounds after the aeration procedures which have been performed by



the school district. The pile has reportedly been spread for aeration twice during the past several years since it was originally stockpiled.

RECOMMENDATIONS

Washington Elementary - There currently appears to be no significant contamination of either the soil or groundwater at the Washington Elementary School underground tank site. Herzog recommends implementation of a Quarterly Groundwater Monitoring Program at this site. Briefly, the program would involve purging and sampling the three wells at the site every three months for a period of one year. The samples would be analyzed by a State certified chemical testing laboratory for TPH as gasoline, diesel and motor oil, as well as BTXE. The groundwater flow direction and gradient should also be determined on a quarterly basis. If, after a year of monitoring and analysis, there are no detectable petroleum hydrocarbon compounds detected in the groundwater, the wells should be abandoned per state regulations.

Cloverdale High - Petroleum hydrocarbon compounds are present in boring/monitoring well MW-6 and are at moderate concentrations. Herzog recommends drilling additional borings and/or monitoring well(s) in the vicinity of MW-6 to determine the extent of migration of petroleum compounds. Excavation and removal of contaminated soils should be performed once the limits of contamination have been defined. The North Coast Regional Water Quality



Control Board (Board) may require a groundwater treatment system to remove hydrocarbon compounds from the groundwater within the vicinity of the contaminated well. After the Board has reviewed this report and provided comments, Herzog can prepare a Work Plan for additional investigation if requested by the School District.

<u>Soil Pile</u> - This soil should be disposed of or treated on site in an appropriate manner under appropriate County guidelines. If requested, Herzog will evaluate treatment or disposal options to determine the most cost effective alternative.

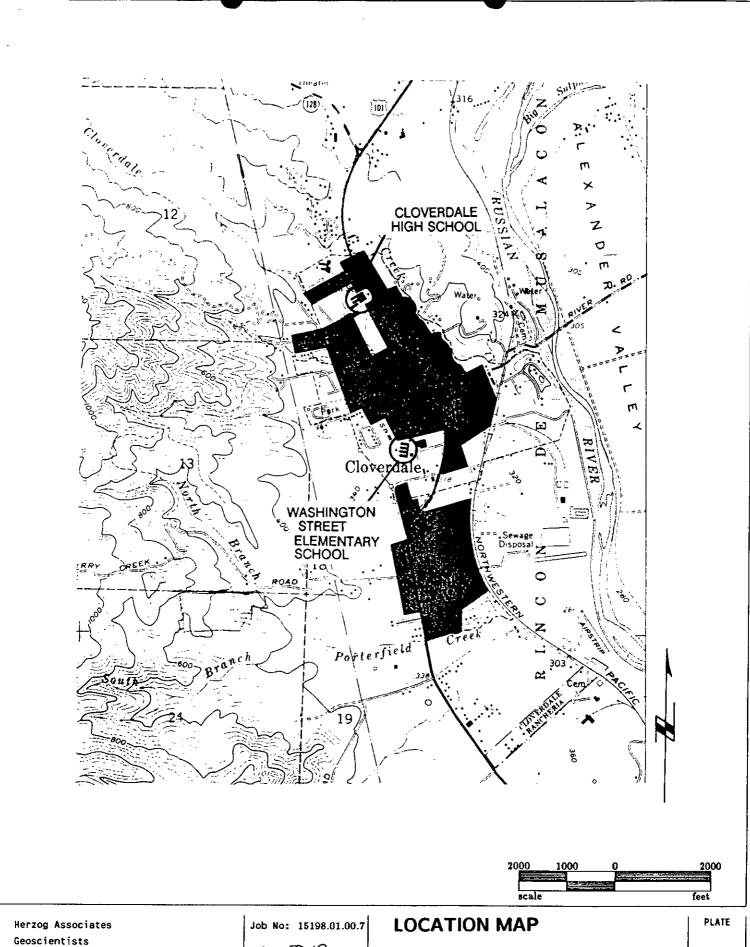
LIMITATIONS OF LIABILITY

Our work has been performed in accordance with generally accepted standards of environmental engineering practices. We offer no other guarantees or warranties, either express or implied.

The conclusions presented by Herzog in this report are qualitative judgments based on a limited amount of quantitative testing at the sample locations selected and at the time of the sampling. Conditions may be different at other sample locations and conditions can change with time. Further subsurface investigation or chemical analyses could reveal conditions different from those inferred by the limited sampling and testing performed for this investigation.

LAH:MWS:clm:mc (7505.20)





HERZOG

Appr: DHP

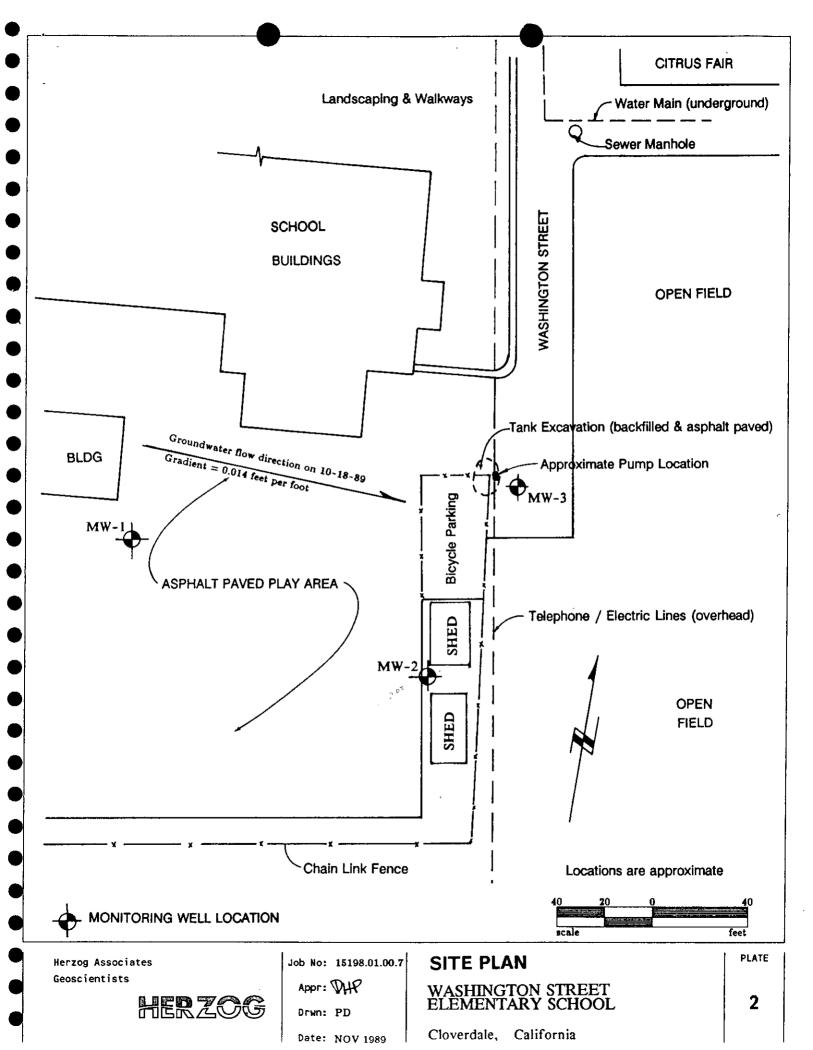
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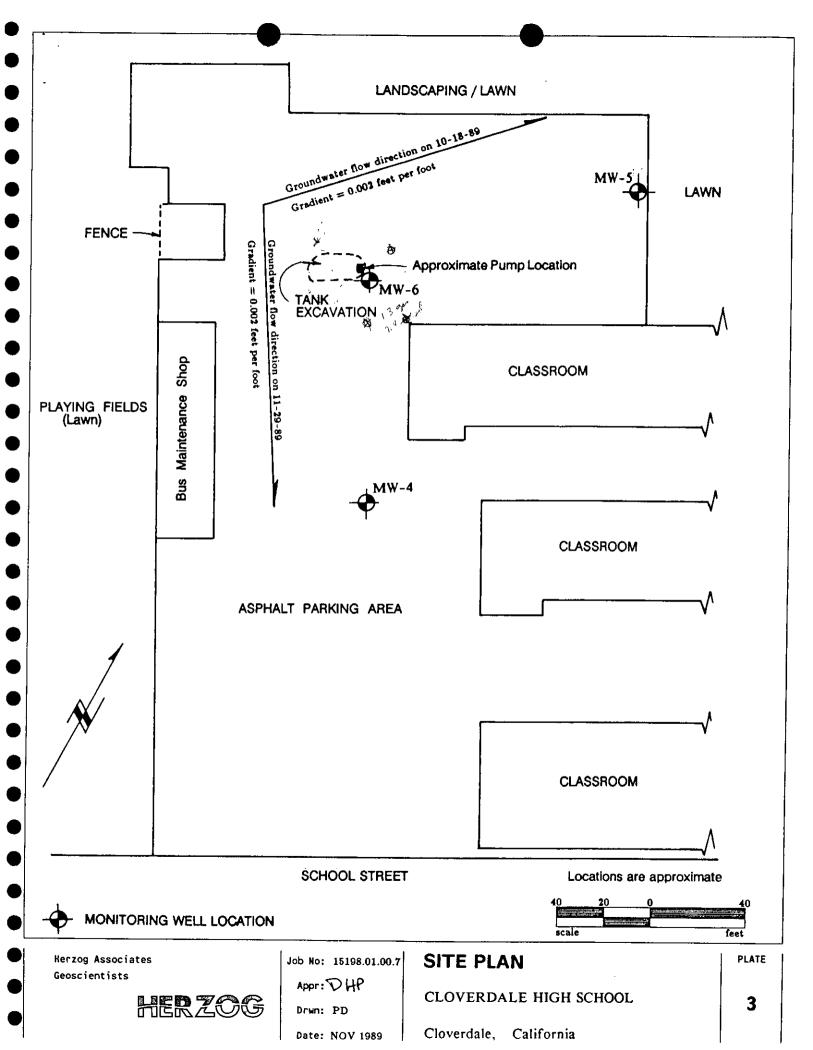
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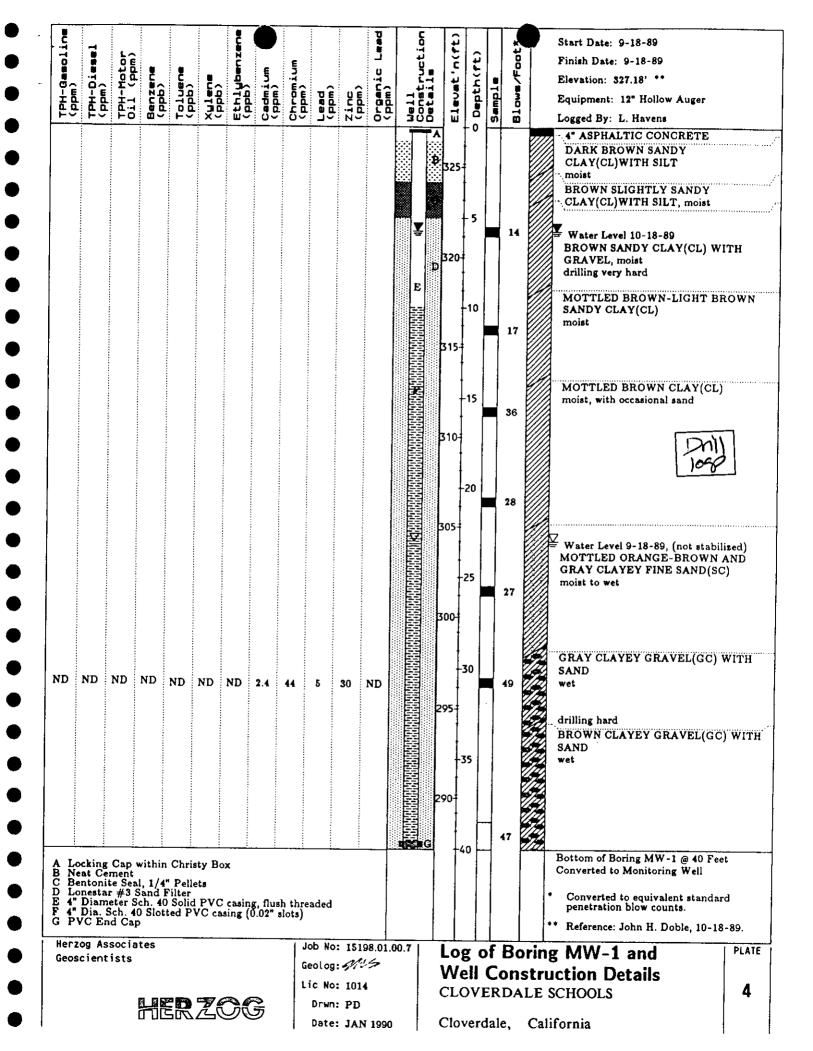
CLOVERDALE SCHOOLS

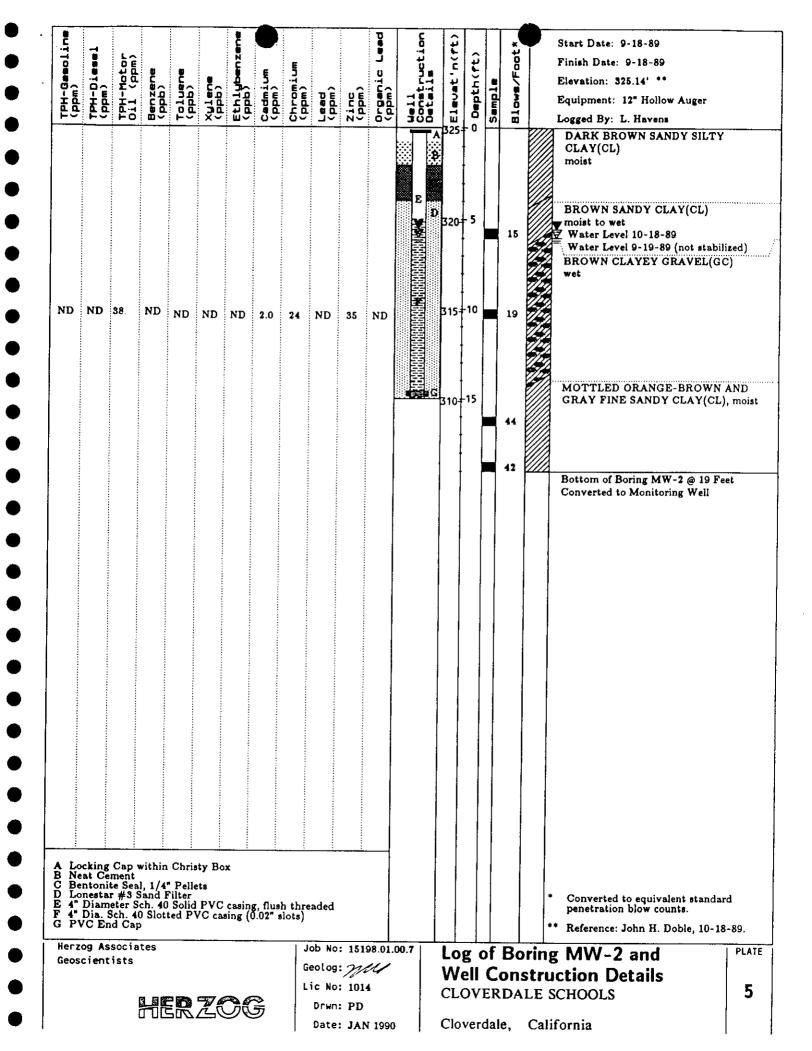
Cloverdale, California

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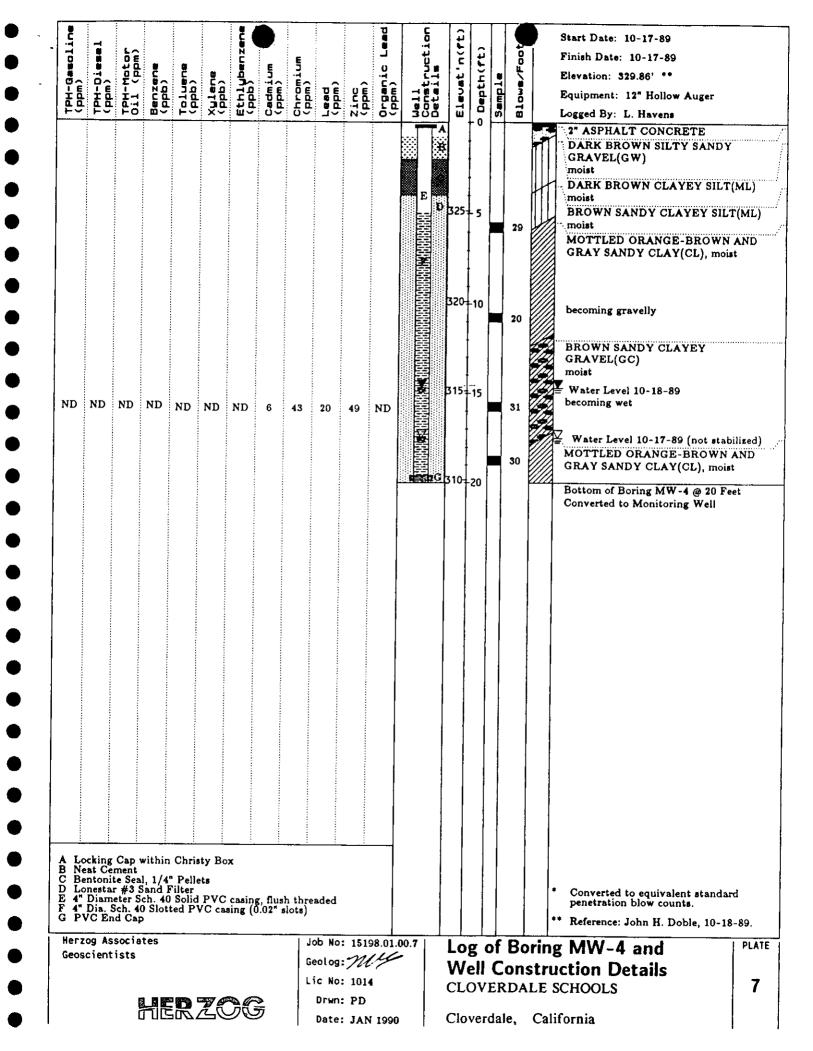


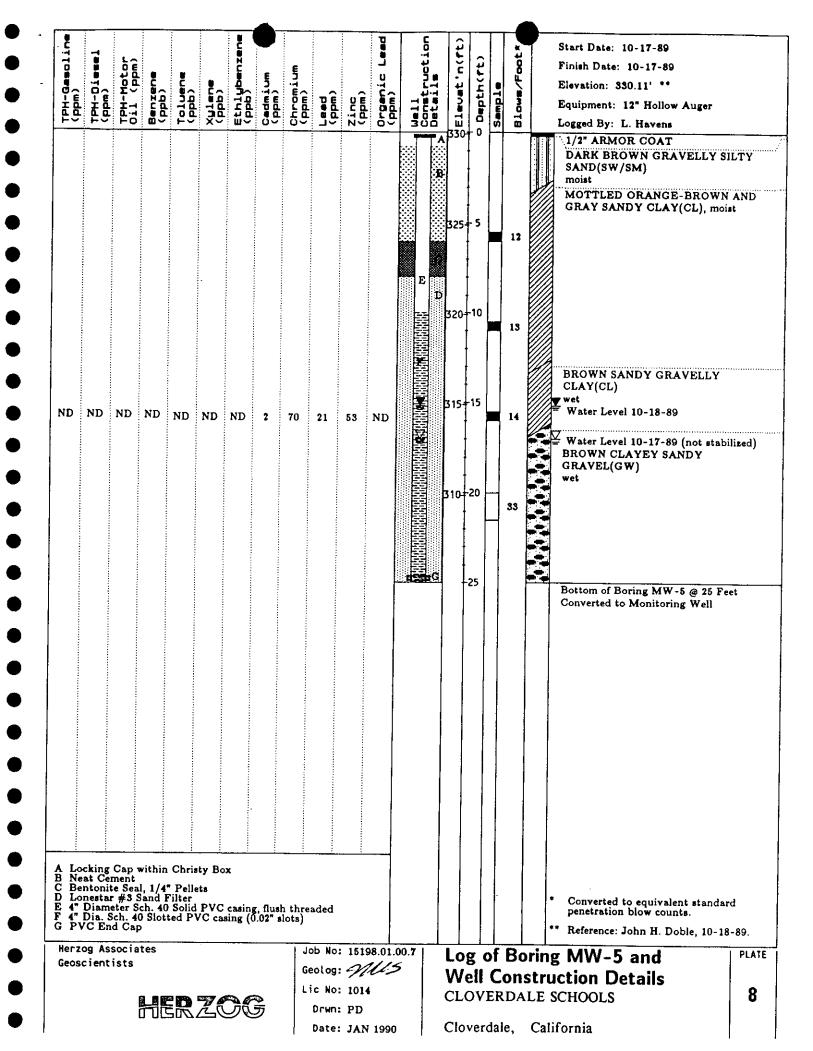


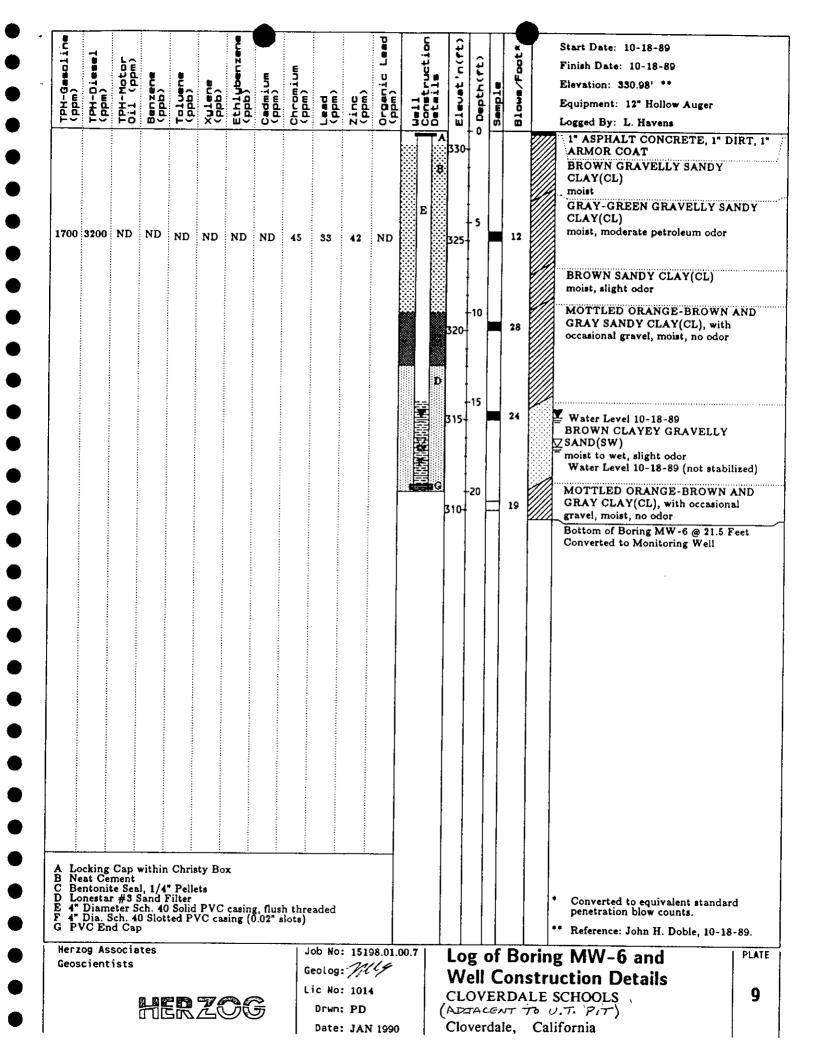




A Locking Cap within Christy Box BND ND N		: 10-16-89 325.03' ** 12" Hollow Auger L. Havens	Logged By: L. Hav		Blows/Foot*		o Depth(ft)	ZELECAT D(Ft)	well Construction Details	Organic Lead (ppm)	Zinc (ppm)	(ppm)	Chromium (ppm)	Cedmium (ppm)	Ethlybenzene (ppb)	Xulene (ppb)	Taluene (ppb)	Benzene (ppb)	TPH-Motor Oil (ppm)	TPH-Diesel (ppm)	TPH-Gasoline (ppm)
Locking Cap within Christy Box Neat Cermon; Neat Cermon; A Locking Cap within Christy Box Neat Cermon; A Converted to Monitoring Well Converted to Monitoring Well Converted to equivalent stand penetration blow counts. A Diameter Sch. 40 Solid PVC casing, flush threaded A Diameter Sch. 40 Solid PVC casing (0.02" slots) Locking Cap within Christy Box Neat Cermon; Neat Cermon; A Converted to equivalent stand penetration blow counts. Reference: John H. Doble, 10- Herzog Associates Geoscientists Job No: 15198.01.00.7 Geolog MM-3 and Well Construction Details	LT(ML)	SILTY SANDY GRAVE SANDY CLAYEY SILT vel 10-18-89 vel 10-16-89 (not stabil	BROWN SILTY moist BROWN SANDY moist Water Level 10-		11			320	Z.												
Locking Cap within Christy Box A Locking Cap within Christy Box Neat Cement Bentonic Seal, 1/4* Pellets Lonestar #3 Sand Filter Lonestar #3 Sand Filter PVC End Cap Her 2og Associates Geoscientists Log of Boring MW-3 and Well Construction Details	N AND	O ORANGE-BROWN A	wet MOTTLED ORA		27					ND	44	25	36	ИD	ND	ND	ND	ND	ND	ND	ND
Rest Cement Cement Bentonite Seal, 1/4" Pellets Lonestar #3 Sand Filter Lonestar #3 Sand Filter Full Sch. 40 Solid PVC casing, flush threaded Full PVC End Cap Converted to equivalent stand penetration blow counts. Reference: John H. Doble, 10- Herzog Associates Geoscientists Job No: 15198.01.00.7 Geolog: Many Well Construction Details		Boring MW-3 @ 16.5 F	Bottom of Boring		19		-15	310													
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	MAJOR DIV	ISIONS		TYPICAL NAMES
	GRAVELS	CLEAN GRAVELS WITH LITTLE OR	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES
0. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	MORE THAN HALF	NO FINES	GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES
SOIL	IS LARGER THAN	GRAVELS WITH	GM	SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES
말 #	NO. 4 SIEVE	OVER 12% FINES	GC	CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES
- 1	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE	SW	WELL GRADED SANDS, GRAVELLY SANDS
COARSE then		OR NO FINES	SP	POORLY GRADED SANDS, GRAVELLY SANDS
More		SANDS WITH OVER 12% FINES	SM	SILTY SANDS, POOORLY GRADED SAND-SILT MIXTURES
			sc //	CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
ieve	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50 SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY
\$01LS			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
**			OL	ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
FINE GRAINED More than Half <			мн	INORGANIC SILTS, MICACEOUS OR DIATOMACIOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			СН	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			он	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
	HIGHLY ORGA	NIC SOILS	Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS

UNIFIED SOIL CLASSIFICATION SYSTEM

■ Undisturbed Sample
 ☑ Bulk or Disturbed Sample
 ☑ Standard Penetration Test
 ☑ Sample Attempt with No Recovery

Herzog Associates Geoscientists

HERZOG

Job No: 15198.01.00.7

Appr: Meg

Drwn: PD

Date: OCT 1989

SOIL CLASSIFICATION CHART

CLOVERDALE SCHOOLS

Cloverdale, California

PLATE

10

APPENDIX A - NET Chemical Analyses Results

Chain of Custody

GC Results



NET Pacific, Inc. 435 Tesconi Circle Santa Rosa, CA 95401 Tel: (707) 526-7200 Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Lisa Havens Donald Herzog & Associates 3000 Cleveland Ave., #200 Santa Rosa. CA 95401 10-13-89

NET Pacific Log No: 7898

Series No: 307

Client Ref: Proj# 15198.01-0-7

Subject: Analytical Results for "Cloverdale" Received 09-26-89.

Dear Ms. Havens:

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

Brian Fies Group Leader

Atomic Spectroscopy

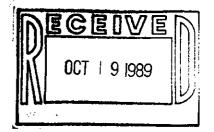
Approved by:

Sue J. Long Group Leader

Classical Chemistry

/sm

Enc: Sample Custody Document





307/

LOG NO 7898

- 2 -

October 13, 1989

KEY TO ABBREVIATIONS and METHOD REFERENCES

Abbreviations

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm): Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis

(parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed

reporting limit.

NR : Not requested.

NTU : Nephelametric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb): Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis

(parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/an : Micramhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

^{*} Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.

CHAIN OF CUSTODY RECORD

Recieved by: (Sig.) Recieved by: (Sig.) ž からかり REMARKS 868 7 week Date/Time Date / 1me 1 文 Relinquished by: (Sig. Relinquished by: (Sig. Ł 9/26/05 1210 Date/Time CONTAINERS номвек ок Open/Time Registered for Lab. bu: Date/Time Received by: (Sig.) Received by: (Sig.) LOCATION Clowerde Le Lisa **38UT** BARD PROJECT NAME RBTAW d TIME SAMPLER(S); (Signatura) usshed by: (Sig) Relinquished by: (Sig) Relinquished by: (Sig) DATE 9/8 8] भू, 15198.01-0-3 30'1 DEPTH , 0/ PROJ. NO. STA. /- OM MW-2

DONALD HERZOG & ASSOCIATES
3888 Cieveland Avenue
Santa Rose, California
(787) 623-3888

H: pd/esd1



307/

LOG NO 7898

- 3 -

October 13, 1989

SAMPLE DESCRIPTION: MW-1 @ 30' 09-18-89

LAB NO.: (-35558)

<u>Parameter</u>	Reporting <u>Limit</u>	Results	<u>Units</u>	Method #
Cadmium Chromium Lead Organic Lead Zinc	1 5 5 0.05 5	2.4 44 5 ND 30	mg/Kg mg/Kg mg/Kg mg/Kg ing/Kg	6010 6010 7420 7421 6010
PETROLEUM HYDROCARBONS VOLATILE (SOIL) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030	10	1 10-02-89		
as Gasoline METHOD 8020 Benzene Ethylbenzene Toluene Xylenes, total	10 25 75 25 75	ND ND ND ND ND	mg/Kg ug/Kg ug/Kg ug/Kg ug/Kg	
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3550		1 09-27-89 09-29-89		
as Diesel as Motor Oil	10 10	ND ND	mg/Kg mg/Kg	



307/

LOG NO 7898

- 4 -

October 13, 1989

SAMPLE DESCRIPTION: MW-2 @ 10' 09-19-89

LAB NO.: (-35559)

Parameter	Reporting <u>Limit</u>	<u>Results</u>	<u>Units</u>	Method #
Cadmium Chromium Lead Organic Lead Zinc	1 5 5 0.05 5	2.0 24 ND ND 35	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	6010 6010 7420 7421 6010
PETROLEUM HYDROCARBONS VOLATILE (SOIL) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline	10	1 10-02-89 ND	mg/Kg	
METHOD 8020 Benzene Ethylbenzene Toluene Xylenes, total	25 75 25 75	ND ND ND ND	ug/Kg ug/Kg ug/Kg ug/Kg	
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3550		1 09-27-89 09-29-89		
as Diesel as Motor Oil	10 10	ND 38	mg/Kg mg/Kg	



NET Pacific, Inc. 435 Tesconi Circle Santa Rosa, CA 95401 Tel: (707) 526-7200 Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Fred Mauer Donald Herzog & Associates 275 Miller Ave. Mill Valley, CA 94941

11-07-89

NET Pacific Log No: 8274

Series No: 307

Client Ref: Proj# 15198.01-0-7

Subject: Analytical Results for "Cloverdale" Received 10-20-89.

Dear Mr. Mauer:

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

Approved by:

Jules Skamarack

Laboratory Manager

Brian Fies 🛭 Group Leader

Atomic Spectroscopy

/sm

Enc: Sample Custody Document



307/

LOG NO 8274

- 2 -

November 7, 1989

KEY TO ABBREVIATIONS and METHOD REFERENCES

Abbreviations

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis

(parts per million).

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ND : Not detected; the analyte concentration is less than applicable listed

reporting limit.

NR : Not requested.

NTU : Nephelametric turbidity units.

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(parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/am : Micramhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

^{*} Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.



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LOG NO 8274 - 3 -

November 7, 1989

SAMPLE DESCRIPTION: MW-3 11'
LAB NO.: (-37836)

10-16-89

Parameter	Reporting <u>Limit</u>	Results	<u>Units</u>
Cadmium Chromium Lead Organic Lead Zinc	1	ND	mg/Kg
	5	36	mg/Kg
	20	25	mg/Kg
	0.05	ND	mg/Kg
	5	44	mg/Kg
PETROLEUM HYDROCARBONS VOLATILE (SOIL) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline METHOD 8020 Benzene Ethylbenzene Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3550	10 25 75 25 75	1 10-30-89 ND ND ND ND ND ND ND 1 10-25-89 10-26-89	mg/Kg ug/Kg ug/Kg ug/Kg ug/Kg
as Diesel	1	ND	mg/Kg
as Motor Oil	10	ND	mg/Kg



307/

LOG NO 8274

November 7, 1989

SAMPLE DESCRIPTION: MW-4 15.5' 10-17-89

LAB NO.:	(-37837)
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Parameter	Reporting <u>Limit</u>	Results	<u>Units</u>
Cadmium Chromium Lead Organic Lead Zinc	1 5 20 0.05 5	6 43 20 ND 49	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg
PETROLEUM HYDROCARBONS VOLATILE (SOIL) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline METHOD 8020 Benzene Ethylbenzene Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3550 as Diesel	10 25 75 25 75	 1 10-30-89 ND ND ND ND ND ND 1 10-25-89 10-26-89 ND	mg/Kg ug/Kg ug/Kg ug/Kg ug/Kg
as Motor Oil	10	ND	mg/Kg



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LOG NO 8274 - 5 -

November 7, 1989

SAMPLE DESCRIPTION: MW-5 15.5' 10-17-89

LAB NO.: (-37838)

Parameter	Reporting <u>Limit</u>	Results	Units
Cadmium	1	2	mg/Kg
Chromium	5	70	mg/Kg
Lead	20	21	mg/Kg
Organic Lead	0.05	ND	mg/Kg
Zinc	5	53	mg/Kg
PETROLEUM HYDROCARBONS VOLATILE (SOIL) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline METHOD 8020 Benzene Ethylbenzene Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3550	10 25 75 25 75	1 10-30-89 ND ND ND ND ND ND ND 1 10-25-89 10-26-89	mg/Kg ug/Kg ug/Kg ug/Kg ug/Kg
as Diesel	1	ND	mg/Kg
as Motor Oil	10	ND	mg/Kg



307/

LOG NO 8274

- 6 -

November 7, 1989

SAMPLE DESCRIPTION: MW-6 5.5' 10-18-89 LAB NO.: (-37839)

Parameter	Reporting <u>Limit</u>	Results	Units
Cadmium Chromium	1 5	ND 45	mg/Kg mg/Kg
Lead	20	33	mg/Kg
Organic Lead	0.05	ND	mg/Kg
Zinc	5	42	mg/Kg
PETROLEUM HYDROCARBONS			
VOLATILE (SOIL) DILUTION FACTOR *			
DATE ANALYZED		20 11-01-89	
METHOD GC FID/5030		11-01-69	
as Gasoline	10	1,700	mg/Kg
METHOD 8020			•
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25 75	ND ND	ug/Kg
Xylenes, total PETROLEUM HYDROCARBONS	75	ND	ug/Kg
EXTRACTABLE (SOIL)			
DILUTION FACTOR *		100	
DATE EXTRACTED		10-25-89	
DATE ANALYZED		10-30-89	
METHOD GC FID/3550	_		
as Diesel	1	3,200	mg/Kg
as Motor Oil	10	ND	mg/Kg



307/

LOG NO 8274

- 7 -

November 7, 1989

SAMPLE DESCRIPTION: SS-1&2comp1-2'10-17-89 (-37840)

LAB NO.:

Parameter	Reporting <u>Limit</u>	Results	Units
Cadmium Chromium Lead Organic Lead Zinc	1 5 20 0.05 5	ND 68 44 ND 84	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg
PETROLEUM HYDROCARBONS VOLATILE (SOIL) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline	10	 1 10-31-89 14	mg/Kg
METHOD 8020 Benzene Ethylbenzene	25 75	14 ND ND	ug/Kg ug/Kg
Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3550	25 75	ND ND 10 10-25-89 10-30-89	ug/Kg ug/Kg
as Diesel as Motor Oil	1 10	47 150	mg/Kg mg/Kg



NET Pacific, Inc. 435 Tesconi Circle Santa Rosa, CA 95401

Tel: (707) 526-7200 Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Lisa Havens
Donald Herzog & Associates
3000 Cleveland Ave., #200
Santa Rosa, CA 95401

11-01-89

NET Pacific Log No: 8240

Series No: 307

Client Ref: Project#15198.01-0-7

Subject: Analytical Results for "Cloverdale" Received 10-18-89.

Dear Ms. Havens:

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

Jules Skamarack

Laboratory Manager

Approved by:

Brian Fies Group Leader

Atomic Spectroscopy

/sm

Enc: Sample Custody Document

DECEIVE NOV - c 1989



307/

LOG NO 8240

- 2 -

November 1, 1989

KEY TO ABBREVIATIONS and METHOD REFERENCES

Abbreviations

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm): Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis

(parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

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NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed

reporting limit.

NR : Not requested.

NTU : Neohelometric turbidity units.

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ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis

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Method References

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Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

^{*} Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.



307/

LOG NO 8240

- 3 -

November 1, 1989

SAMPLE DESCRIPTION: MW-1 LAB NO.: (-37641)

10-18-89

<u>Parameter</u>	Reporting <u>Limit</u>	Results	Units
Cadmium	0.02	ND	mg/L
Chromium, total	0.05	ND	mg/L
Lead	0.2	ND	mg/L
Organic Lead	0.01	ND	mg/L
Zinc	0.02	ND	mg/L
PETROLEUM HYDROCARBONS VOLATILE (WATER) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline METHOD 602 Benzene Ethylbenzene Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (WATER) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3510	0.05 0.5 1.5 0.5 1.5	1 10-19-89 ND ND ND ND ND ND 10-19-89 10-20-89	mg/L ug/L ug/L ug/L ug/L
as Diesel	0.05	ND	mg/L
as Motor Oil	0.05	ND	mg/L



307/ LOG NO 8240 - 4 -

November 1, 1989

SAMPLE DESCRIPTION: MW-2 LAB NO.: (-37642)

10-18-89

Parameter	Reporting <u>Limit</u>	Results	<u>Units</u>
Cadmium Chromium, total Lead Organic Lead Zinc	0.02 0.05 0.2 0.01 0.02	0.02 ND ND ND ND	mg/L mg/L mg/L mg/L mg/L
PETROLEUM HYDROCARBONS VOLATILE (WATER) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline METHOD 602 Benzene Ethylbenzene Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (WATER)	0.05 0.5 1.5 0.5 1.5	 1 10-19-89 ND ND ND ND ND ND	mg/L ug/L ug/L ug/L ug/L
DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3510 as Diesel as Motor Oil	0.05 0.05	1 10-19-89 10-20-89 ND ND	mg/L mg/L



307/

LOG NO 8240

- 5 -

November 1, 1989

SAMPLE DESCRIPTION: MW-3

10-18-89

LAB NO.: (-37643)

<u>Parameter</u>	Reporting <u>Limit</u>	Results	Units
Cadmium Chromium, total Lead Organic Lead Zinc	0.02 0.05 0.2 0.01 0.02	ND ND ND ND ND	mg/L mg/L mg/L mg/L mg/L
PETROLEUM HYDROCARBONS VOLATILE (WATER) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline	0.05	1 10-19-89 ND	mg/L
METHOD 602 Benzene Ethylbenzene Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (WATER)	0.5 1.5 0.5 1.5	ND ND ND ND	ug/L ug/L ug/L ug/L
DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3510 as Diesel as Motor Oil	0.05 0.05	1 10-19-89 10-20-89 ND ND	mg/L mg/L



307/ LOG NO 8240 - 6 -

November 1, 1989

SAMPLE DESCRIPTION: MW-4 10-18-89 LAB NO.: (-37644)

Parameter	Reporting <u>Limit</u>	Results	Units
Cadmium Chromium, total Lead Organic Lead Zinc	0.02 0.05 0.2 0.01 0.02	ND ND ND ND O.04	mg/L mg/L mg/L mg/L mg/L
PETROLEUM HYDROCARBONS VOLATILE (WATER) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline METHOD 602 Benzene Ethylbenzene Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (WATER) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED	0.05 0.5 1.5 0.5 1.5	1 10-19-89 ND ND ND ND ND ND ND 10-19-89 10-20-89	mg/L ug/L ug/L ug/L ug/L
METHOD GC FID/3510 as Diesel as Motor Oil	0.05 0.05	ND ND	mg/L mg/L



307/

LOG NO 8240

- 7 -

November 1, 1989

SAMPLE DESCRIPTION: LAB NO.:

10-18-89

MW-5 (-37645)

Parameter	Reporting <u>Limit</u>	Results	<u>Units</u>
Cadmium Chromium, total Lead Organic Lead Zinc	0.02 0.05 0.2 0.01 0.02	ND ND ND ND O.02	mg/L mg/L mg/L mg/L mg/L
PETROLEUM HYDROCARBONS VOLATILE (WATER) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline	0.05	 1 10-19-89 ND	mg/L
METHOD 602 Benzene Ethylbenzene Toluene Xylenes, total	0.5 1.5 0.5 1.5	ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L
PETROLEUM HYDROCARBONS EXTRACTABLE (WATER) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3510		1 10-19-89 10-20-89	
as Diesel as Motor Oil	0.05 0.05	ND ND	mg/L mg/L



307/

LOG NO 8240

- 8 -

November 1, 1989

SAMPLE DESCRIPTION: MW-6 LAB NO.: (-37646)

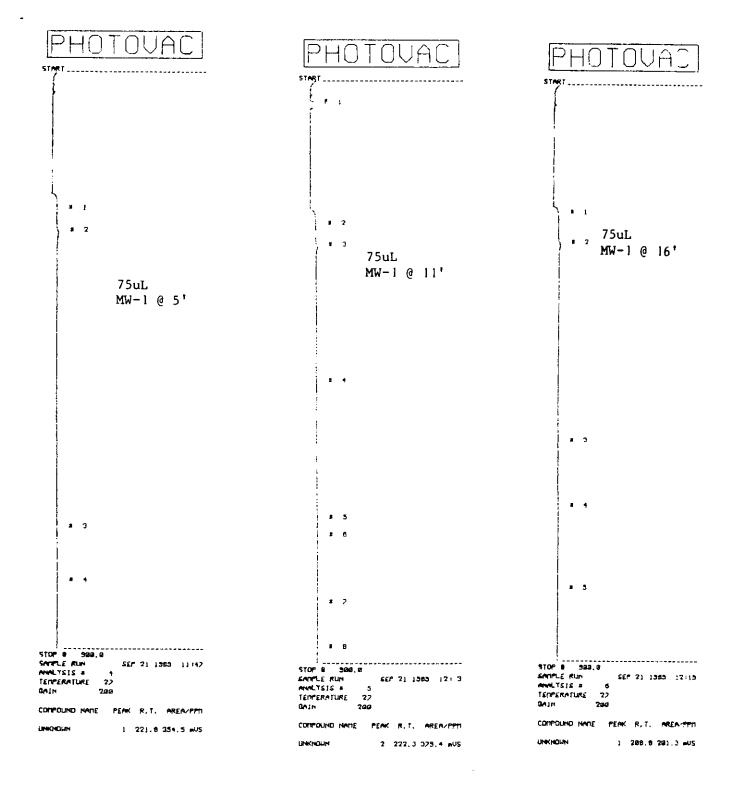
10-18-89

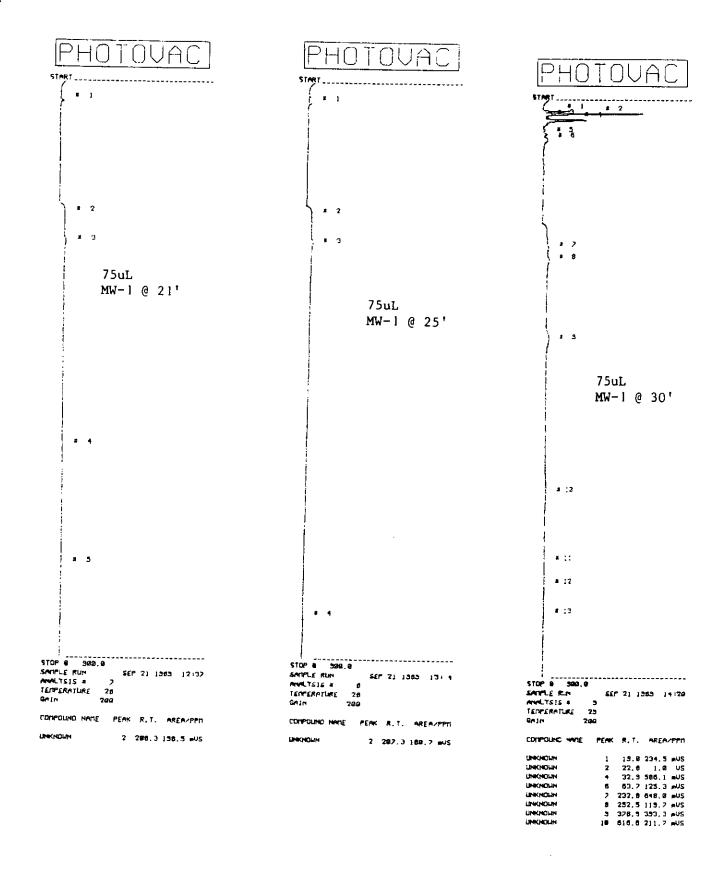
<u>Parameter</u>	Reporting <u>Limit</u>	Results	Units
Cadmium Chromium, total Lead Organic Lead Zinc	0.02 0.05 0.2 0.01 0.02	ND 0.11 ND ND 0.14	mg/L mg/L mg/L mg/L mg/L
PETROLEUM HYDROCARBONS VOLATILE (WATER) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030 as Gasoline METHOD 602 Benzene Ethylbenzene Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (WATER)	0.05 0.5 1.5 0.5 1.5	10 10-19-89 1.3) 1300/Aph ND ND ND ND ND	mg/l(ppm) ug/L ug/L ug/L ug/L
DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3510 as Diesel as Motor Oil	0.05 0.05	1 10-19-89 10-20-89 (7.4) 7400ffb	mg/L (gp.m.) mg/L

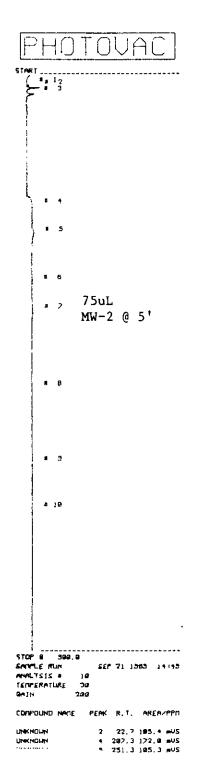
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DONALD HERZOG & ASSOCIATES 3000 Cleveland Avenue Santa Rose, California (707) 523-3880

FM: pd/eed1







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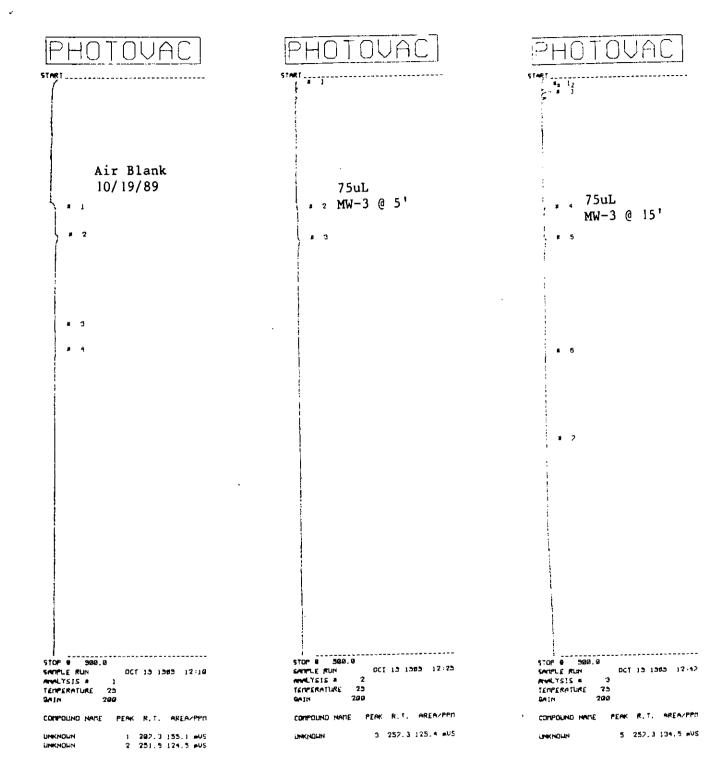
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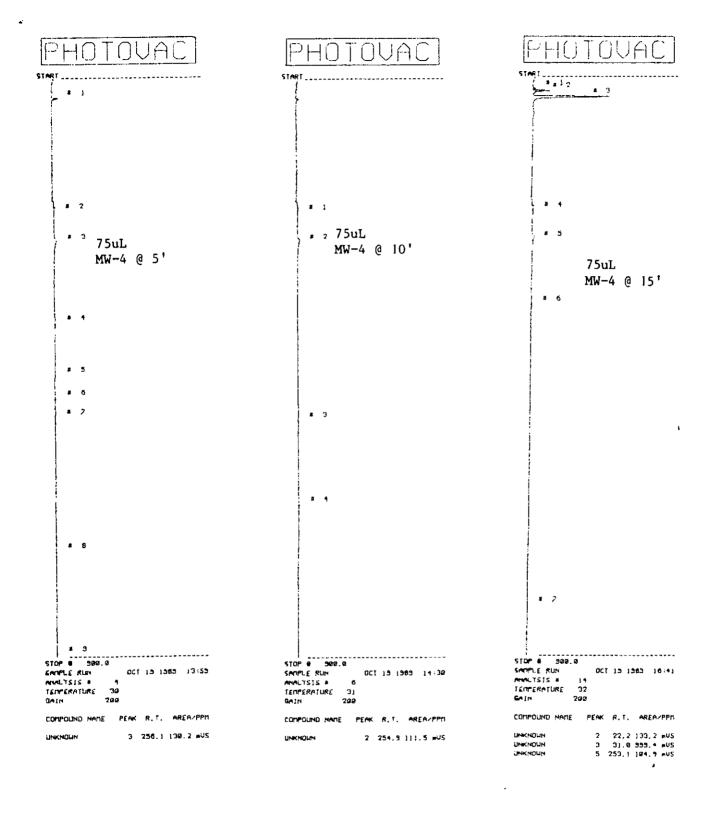
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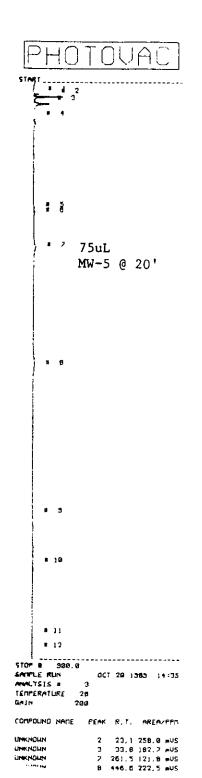
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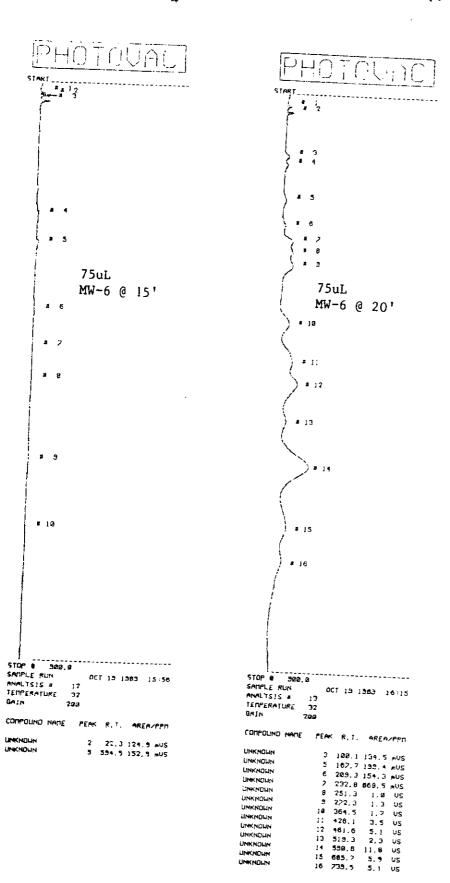
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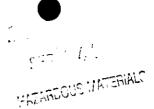
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Herzog Associates Geoscientists

3000 Cleveland Avenue, Suite 200 Santa Rosa, California 95403 Tel (707) 523-3880 Fax (707) 523-3904



September 12, 1989 Job Number 15198.1-0-7

Cloverdale High School Mr. David Ashworth, Principal 509 Cloverdale Blvd. Cloverdale, California 95425

Drilling and Well Installation at Re:

509 N. Cloverdale Blvd.

This letter is presented to inform you that Herzog Associates (Herzog) will be drilling and installing three monitoring wells at 509 N. Cloverdale Blvd. to explore the potential for subsurface soil and/or groundwater contamination resulting from the previously removed underground petroleum storage tanks(s). The drilling will take place on Wednesday and Thursday, September 20th and 21th, 1989. Please review the attached site plan. Plate 1 for approximate boring locations.

We have attached a copy of our Health and Safety Plan for your reference. Please review this document as it explains the health risks of the work we are performing and describes our safety plan.

It would be prudent to instruct the school children to keep well away from the work area, and to use alternate play areas (or to have breaks indoors) on the dates of drilling. Please control the students and monitor their activities closely for the safety of everyone involved. We will cordon off the work area to help keep the students at a safe distance, but the best and safest solution would be for you to advise them of our work and find alternative areas for them to play.

Safety is our main concern--please take the appropriate steps to ensure that it is maintained. Feel free to call the undersigned if you have any questions.

Yours very truly,

HERZOG ASSOCIATES

Environmental Services Division

Marc W. Seeley Division Manager

LAH:MWS:clm (7805.63)

Lisa Havens Assistant Geologist

Jian a. African

Attachments:

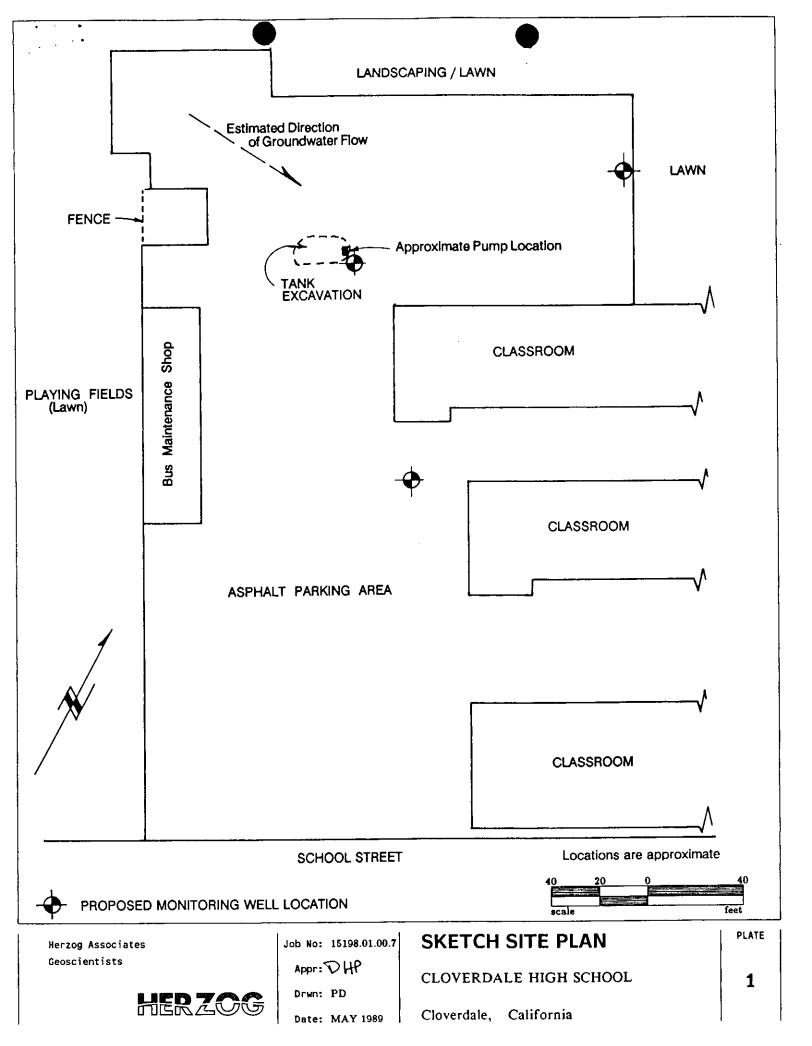
Health and Safety Plan

cc:

Virginia Cummings, NRCWQCB 1440 Guerneville Road Santa Rosa, CA 95403

Alex Schneider, HAZMAT 2435 Professional Drive, Suite A Santa Rosa, CA 95403

Dr. Donald Sato, Cloverdale School District Superintendent 97 School Street Cloverdale, CA 95425



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD-

1440 Guerneville Road Santa Rosa, CA 95403 Phone: (707) 576-2220

NORTH COAST REGION

July 11, 1989

ap



RECEIVED
.III 1 3 1989
HAZARDOUS MATERIALS

Mr. James D. McAuley Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Dear Mr. McAuley:

Subject: UGT 1TS0108, Cloverdale High School, 509 N. Cloverdale Street; UGT 1TS0109, Washington Street Elementary School, 129 S. Washington Street

Thank you for the workplan addendum dated June 1, 1989 prepared by Herzog Associates for the investigation of unauthorized releases of fuel products at the Cloverdale High School and Washington Street Elementary School.

We concur with the proposed locations of the monitoring wells for the Cloverdale High School site. With regard to the Washington Street Elementary School site, however, it may be useful to relocate the play area monitoring well to the open field. Alternatively, you might consider installing a fourth monitoring well in the field.

I look forward to working with you in the cleanup of these sites. Please let me know when the on-site work will commence so that I may be present, if scheduling permits. If you have any questions regarding this matter, please do not hesitate to contact me.

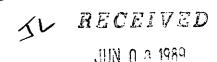
Sincerely.

Virginia Cummings Environmental Specialist

MVC:mkk

cc: Jeff Lewin, Sonoma County Environmental David H. Peterson, Herzog Associates Herzog Associates Geoscientists

3000 Cleveland Avenue, Suite 200 Santa Rosa, California 95403 Tel (707) 523-3880 Fax (707) 523-3904



HAZARDOUS MATERIALS



June 1, 1989 Job No. 15198-1-0-7

Cloverdale Unified School District 97 School Street Cloverdale, California 95425

Attention: Mr. James D. McAuley

RE: Work Plan Addendum

Monitoring Well Installation and Sampling

Cloverdale High School and

Washington Street Elementary School

Cloverdale, California

Dear Mr. McAuley:

As requested in the California North Coast Regional Water Quality Control Board's (Board) April 12, 1989 letter, this addendum provides clarifications to our Work Plan and Addition to Work Plan (dated February 22 and March 14, 1989, respectively) for the above sites. The response to each item discussed in the Board's letter is numbered corresponding to the original comment. A copy of the Board's letter is attached for your reference.

- 1. Site Maps - Attached, as Plates 1 and 2, are sketch site plans for each school, showing the location of the tank excavations with respect to adjacent structures and streets.
- 2.a. Monitoring well locations - Shown on attached site maps (Plates 1 and 2).
- 2.b. Typical monitoring well detail - Attached as Plate 3.
- 2.c. Diameter of well casing - A wells will be constructed of 4-inch diameter PVC casing, as indicated on Plate 3.
- 3. Containment and disposal of waste soil and water - Waste soils produced from drilling and sampling activities shall temporarily be placed on and covered with visqueen or similar plastic sheeting at the site pending results of chemical analyses. Water from well development shall be temporarily stored on site in covered, secured 55-gallon drums. Waste disposal, if it is necessary, shall be the

Cloverdale High School and Washington Street Elementary School Job Number 15198.1-0-7 Page 3 - June 1, 1989

responsibility of the client; Herzog can assist in coordinating disposal activities as an additional work item if requested. The cost of waste disposal would be dependent on reported concentrations, amount and type of waste encountered.

- 4. Elevation survey of wells Following construction of the monitoring wells, a permanent mark will be established on the top of each well casing. The casings will then be surveyed to establish location and elevation of the casing marking to the nearest 0.01 foot by a licensed land surveyor. Water levels will be measured to the nearest 0.01 foot on a monthly basis, as requested. We propose to perform such measurements as a separate phase of work for one year and then evaluating the further need for monthly measurements.
- 5. Soil samples will be collected at approximately five foot intervals or closer, as needed to define soil/groundwater conditions. Six soil samples are currently planned for analyses. These would most likely be from the boring at each site closest to and downgradient from the tank excavation, for a total of three samples per boring. This sampling is directed primarily at evaluating vertical limits of hydrocarbon migration near the tank; if deemed necessary based on gas chromatograph screening of soil samples from the other borings, additional samples will be tested at a State certified analytical laboratory.
- 6. Well Survey According to the Cloverdale Water Department, the City water supply is from municipal wells, located adjacent to the Russian River (0.8 miles from either site). No known domestic water supply wells are in use within 1/4 mile of the sites. A water well canvas was not part of our proposed scope of work. Such a survey of existing domestic well within 1/4 mile of the sites would be proposed on a separate phase of work if the results of the initial subsurface and

Cloverdale High School and Washington Street Elementary School Job Number 15198.1-0-7 Page 3 - June 1, 1989

groundwater investigation so warrant.

7. This work plan addendum should be submitted to the Board and to Sonoma County Environmental Health Department for review and comment.

We hope this letter clarifies the questions raised by the Board and will allow us to proceed with the field investigation and well installation phase of our study. Please call if you have any questions about our response to the Board's comments.

Yours very truly,

HERZOG ASSOCIATES

David H. Peterson

Engineering Geologist - 1186

David H. Leters

DHP:mc:clm (302.27) OC Reviewer: MWS

Three copies submitted

Attachments:

Copy of April 12, 1989 Letter by Board

Plates 1 and 2 - Site Maps

Plate 3 - Typical Monitoring Well Detail

Plate 4 - Well Survey Map

cc: North Coast Regional Water Quality Control Board

1440 Guerneville Road Santa Rosa, CA 95403

Attention: Ms. Virginia Cummings

Sonoma County Environmental Health Department

3313 Chanate Road Santa Rosa, CA 95404 Attention: Mr. Jeff Lewin

CALIFORNIA' REGIONAL WATER

LITY CONTROL BOARD-

NORTH COAST REGION

1440 Guerneville Road Santa Rosa, CA 95403 Phone: (707) 576-2220

April 12, 1989



Mr. James D. McAuley Interim Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Dear Mr. McAuley:

Subject: 1TSO108, Cloverdale High School, 509 N. Cloverdale Street 1TSO109, Washington Street Elementary School, 129 S. Washington Street

Thank you for the proposed workplan and addendum, dated February 22 and March 14, 1989 to investigate unauthorized releases of fuel products at the Cloverdale High School and Washington Street Elementary School.

The purpose of this letter is to provide you with comments and suggestions I have concerning the proposed workplan. Copies of this letter are being sent to your consultant, Herzog Associates, and the Sonoma County Environmental Health Department. Generally, the overall approach of the workplan seems reasonable, but a number of clarifications are required. You will need to submit a workplan addendum addressing these points within 30 days of receipt of this letter.

- Please provide a site map which shows adjacent streets, site building locations, and the locations of the former tanks, connected piping, and pump islands. The previous maps submitted with the 1987 report lack this information.
- 2. We concur that at least three monitoring wells are needed for each of the two sites. However, you did not provide information concerning the proposed locations of the monitoring wells and sufficient detail on how the monitoring wells would be constructed. The following information is needed:
 - a. A map showing the proposed locations of the monitoring wells.
 - b. A diagram showing the proposed construction details of the monitoring wells.
 - c. Your workplan did not specify the diameter of well casing to be used. Please note that the Regional Board prefers use of 4- inch well casing, rather than 2-inch. The 2-inch cased wells are often unable to be adequately developed. If the installation of 2-inch wells results in a inadequately developed monitoring well such that representative groundwater samples cannot be collected, then a replacement well may be required at a later date.
- 3. Your workplan needs to discuss how you plan to contain and dispose of drill cuttings and water used as rinsate in the decontamination of the drilling equipment. Drill cuttings and rinsate will need to be securely stored on site and ultimately need to be disposed of at an approved facility.

Mr. James D. McAuley Page 2 April 12, 1989

- 4. Monitoring well locations need to be surveyed to the nearest 0.01 foot, and static water level elevations need to be measured to 0.01 foot accuracy. Each monitoring well should be surveyed to mean sea level at increments of 0.01 foot. The wells need to be measured for water elevations on a monthly basis.
- 5. Soil samples need to be taken at a minimum of every five feet, at any change in lithology, at any areas of obvious contamination, and at the soil/groundwater interface. Your workplan indicated that six soil samples are budgeted for chemical analysis. Analysis of only one soil sample per well may not adequately define the extent of soil contamination at these sites.
- 6. Any existing on-site wells should be sampled immediately. In addition, a survey of wells within 1/4 mile of each of the two sites needs to be conducted to determine the potential threat to water users in the area.
- 7. Please be advised that reports should be simultaneously submitted to this agency and to the Sonoma County Environmental Health Department.

The submitted workplan is for an initial investigation. If groundwater is found to be contaminated, then further work may be needed to define the complete vertical and horizontal extent of contamination and to develop an appropriate cleanup plan.

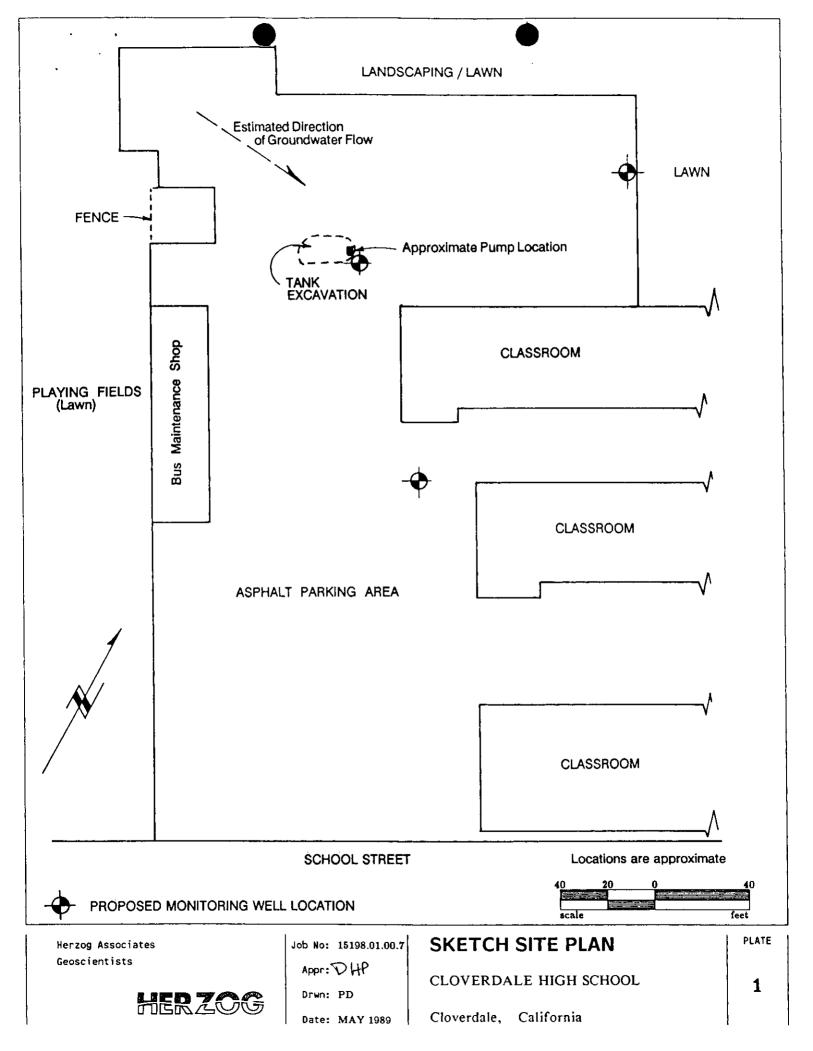
I look forward to receiving the above requested clarifications from you. If you have any questions, please do not hesitate to contact me at (707) 576-2220.

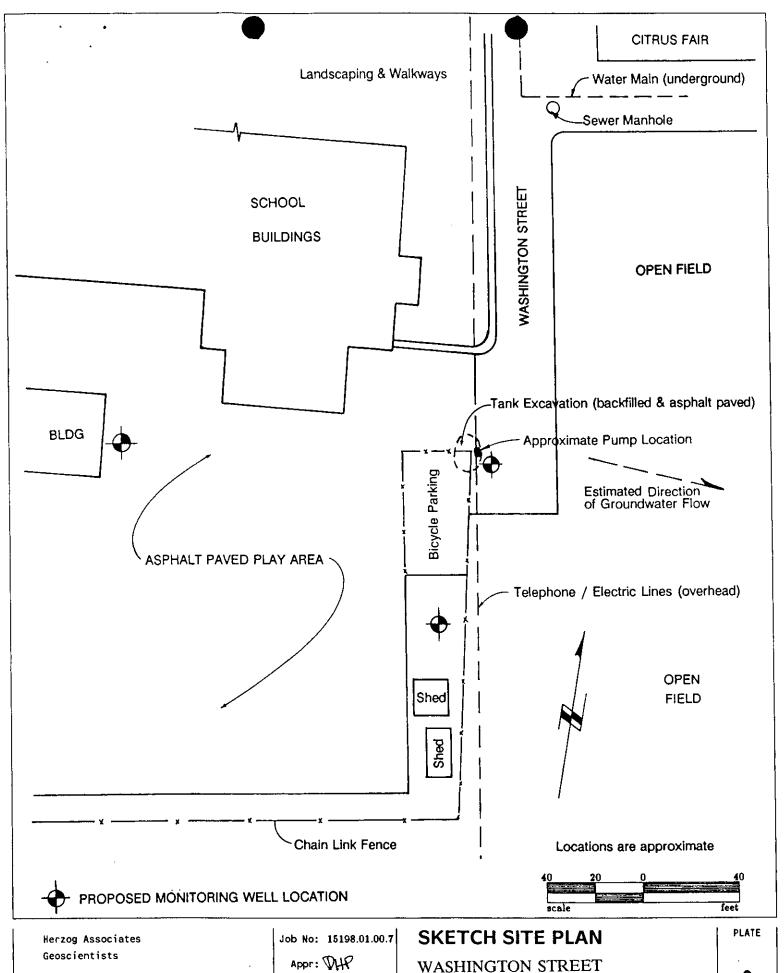
Sincerely,

Virginia Cummings Environmental Specialist

MVC:mkk

cc: Jeff Lewin, Sonoma County Environmental Health Department Marc Seeley, Herzog Associates, Inc.





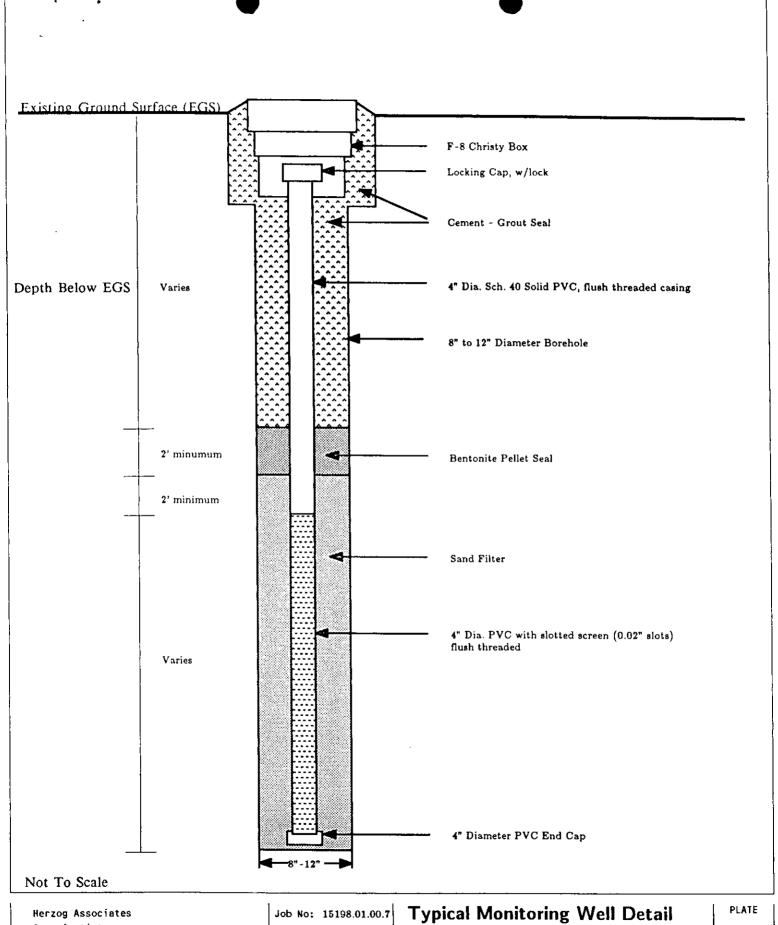
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Date: MAY 1989

WASHINGTON STREET ELEMENTARY SCHOOL

Cloverdale, California

2



Geoscientists

Appr: DHP

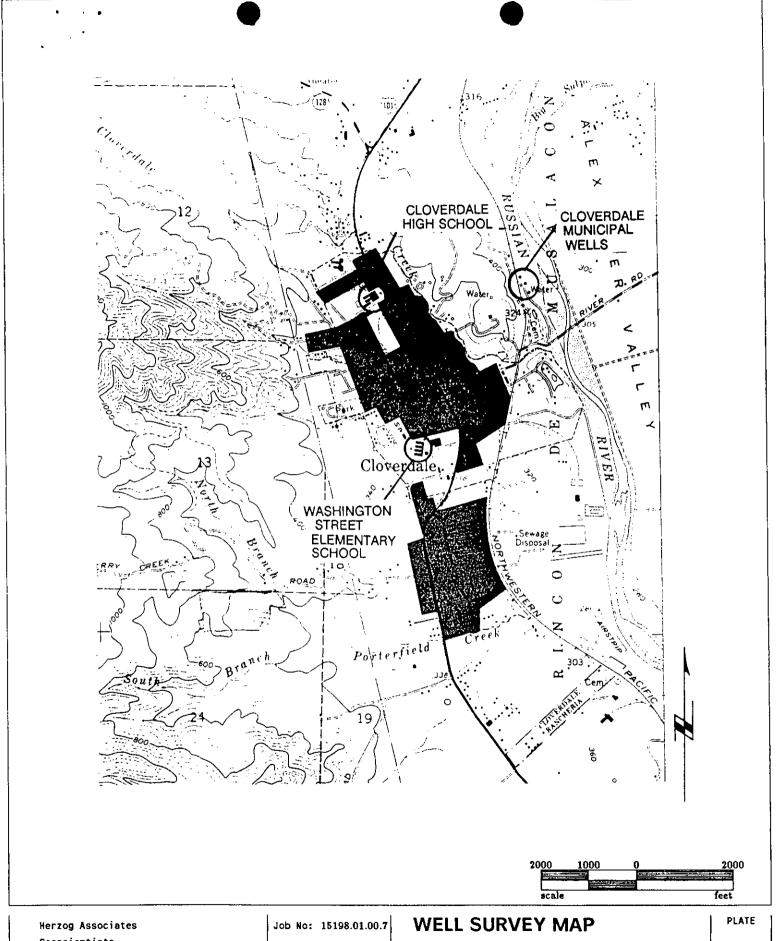
Drwn: PD

Date: MAY 1989

CLOVERDALE SCHOOLS

Cloverdale, California

3



Geoscientists

HERZOG

Appr: DHP

Drwn: PD

Date: MAY 1989

CLOVERDALE SCHOOLS

Cloverdale, California

4

CALIFORNIA REGIONAL WATER SALITY CONTROL BOARD—NORTH COAST REGION

1440 Guerneville Road Santa Rosa, CA 95403 Phone: (707) 576-2220

April 12, 1989

With the

APR 1 A 1200 HAZARDOUS MATERIALS

Mr. James D. McAuley Interim Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Dear Mr. McAuley:

Subject: 1TSO108, Cloverdale High School, 509 N. Cloverdale Street 1TSO109, Washington Street Elementary School, 129 S. Washington Street

Thank you for the proposed workplan and addendum, dated February 22 and March 14, 1989 to investigate unauthorized releases of fuel products at the Cloverdale High School and Washington Street Elementary School.

The purpose of this letter is to provide you with comments and suggestions I have concerning the proposed workplan. Copies of this letter are being sent to your consultant, Herzog Associates, and the Sonoma County Environmental Health Department. Generally, the overall approach of the workplan seems reasonable, but a number of clarifications are required. You will need to submit a workplan addendum addressing these points within 30 days of receipt of this letter.

- 1. Please provide a site map which shows adjacent streets, site building locations, and the locations of the former tanks, connected piping, and pump islands. The previous maps submitted with the 1987 report lack this information.
- 2. We concur that at least three monitoring wells are needed for each of the two sites. However, you did not provide information concerning the proposed locations of the monitoring wells and sufficient detail on how the monitoring wells would be constructed. The following information is needed:
 - a. A map showing the proposed locations of the monitoring wells.
 - b. A diagram showing the proposed construction details of the monitoring wells.
 - c. Your workplan did not specify the diameter of well casing to be used. Please note that the Regional Board prefers use of 4- inch well casing, rather than 2-inch. The 2-inch cased wells are often unable to be adequately developed. If the installation of 2-inch wells results in a inadequately developed monitoring well such that representative groundwater samples cannot be collected, then a replacement well may be required at a later date.
- 3. Your workplan needs to discuss how you plan to contain and dispose of drill cuttings and water used as rinsate in the decontamination of the drilling equipment. Drill cuttings and rinsate will need to be securely stored on site and ultimately need to be disposed of at an approved facility.

Mr. James D. McAuley Page 2 April 12, 1989

- 4. Monitoring well locations need to be surveyed to the nearest 0.01 foot, and static water level elevations need to be measured to 0.01 foot accuracy. Each monitoring well should be surveyed to mean sea level at increments of 0.01 foot. The wells need to be measured for water elevations on a monthly basis.
- 5. Soil samples need to be taken at a minimum of every five feet, at any change in lithology, at any areas of obvious contamination, and at the soil/groundwater interface. Your workplan indicated that six soil samples are budgeted for chemical analysis. Analysis of only one soil sample per well may not adequately define the extent of soil contamination at these sites.
- 6. Any existing on-site wells should be sampled immediately. In addition, a survey of wells within 1/4 mile of each of the two sites needs to be conducted to determine the potential threat to water users in the area.
- 7. Please be advised that reports should be simultaneously submitted to this agency and to the Sonoma County Environmental Health Department.

The submitted workplan is for an initial investigation. If groundwater is found to be contaminated, then further work may be needed to define the complete vertical and horizontal extent of contamination and to develop an appropriate cleanup plan.

I look forward to receiving the above requested clarifications from you. If you have any questions, please do not hesitate to contact me at (707) 576-2220.

Sincerely,

Virginia Cummings Environmental Specialist

MVC:mkk

cc: Jeff Lewin, Sonoma County Environmental Health Department Marc Seeley, Herzog Associates, Inc.

Scott Brown, District Superintendent Douglas Dorman, Assistant Superintendent-Business

March 10, 1989

RECEIVED

Sonoma County Department of Environmental Health Attention: Mr. Jack Lee 2435 Professional Drive, Suite A Santa Rosa, California 95401 MAR 1 3 1989

HAZARDOUS MATERIALS

Dear Mr. Lee:

Herzog Associates have developed a plan to check subsurface soil and groundwater contamination at two sites in our district.

Please check the plans and let me know if they meet with your requirements.

After receiving approval from your office and that of the Regional Water Quality Control Board, the district will contract with Herzog Associates to do the work.

Thank you for your assistance in this matter.

Yours truly,

James D. McAuley

Interim Superintendent

Enc.:

Herzog Associates Geoscientists 275 Juliar Avenue Mill Vailey, Caufornia 94941 Tel (415) 363-7740 Fax (415) 383-1821

February 22, 1989 Job No. 15198.1-0-7 HERZOG

Cloverdale Unified School District Attention: Mr. James D. McAuley Interim Superintendent 97 School Street Cloverdale, California 95425

RE: Work Plan
Monitoring Well Installation and Sampling
Cloverdale High School
Washington Street Elementary School
Cloverdale, California

Dear Mr. McAuley:

In accordance with your request, Herzog Associates (Herzog) is pleased to submit this work plan for the investigation of potential subsurface soil and groundwater contamination at the subject sites. We have provided a proposal for the drilling and sampling of six exploratory borings, three at the Cloverdale High School site and three at the Washington Street Elementary School site. Each of these boreholes will be drilled 15 or more feet below the groundwater level and developed as a monitoring well. This plan should be submitted to the regulatory agencies (San Francisco Bay Area Regional Water Quality Control Board, RWQCB, and Sonoma County Department of Environmental Health) for approval.

History

We understand that two adjacent underground tanks were removed from the high school site on July 17, 1986 and one was removed from the elementary school site on July 28, 1986. Tank removal was performed by H&H Ship Service Company of San Francisco, California. At the time of removal, soil samples from the high school site and soil and water samples from the elementary school site were secured by Herzog Associates. These samples were then submitted to Multi-Tech Laboratories in Santa Rosa, California, for analysis of petroleum contamination.

The tests detected 620 and 730 parts per million of heavy hydrocarbons and 880 parts per million of liquid hydrocarbons in soil samples, from below tanks at the high school site, and 16,000 parts per million of light hydrocarbons in water from the tank excavation at the elementary school site.

The RWQCB is requiring additional investigation of soil and potential groundwater contamination at the two sites.

Cloverdale Unified School District Mr. James D. McAuley Job No. 15198.1-0-7 February 22, 1989 - Page 2

Included in Herzog's scope of work are preparing this work plan, preparing well permit applications, obtaining well permits, installing the wells and obtaining soil and water samples, chemical testing of selected samples, and preparing a report. If the three monitor wells at each site detect contamination, the RWQCB may subsequently require that additional wells be installed. These wells would be included in a future scope of work.

Boreholes and Monitoring Wells

Based on our past experience with this type of investigation, three boreholes at each site will be required. Each borehole will be developed as a monitoring well. The wells will be strategically located based on the assumed groundwater gradient. In accordance with the tri-region staff recommendations of the RWQCB, one well will be located within 10 feet of the former tanks on the down-gradient side. The groundwater gradient will be estimated from available published and unpublished geologic, geotechnical, and hydrologic information about the site vicinity, from client and property owner information, and from the lay of the land.

Briefly, our investigation approach will involve the following. We will drill six borings using a truck-mounted, hollow stem auger drill rig. The depth of these borings will vary depending on the level of contamination. All of the borings will be drilled to approximately 15 feet below the static groundwater table and developed as monitoring wells. Since the water table is expected to be relatively shallow at the site during wet winters, the wells will be screened to as high as possible without reducing the effectiveness of the seal.

Sampling and Testing

Soil samples will be taken every five feet in the borings using a Modified California Sampler. Standard EPA, State, and County (as applicable) protocol will be used for sampling, borehole logging, equipment decontamination, well installation and development, and sample transport. Drilling spoils and retrieved groundwater will remain on site and will be covered with plastic sheeting or placed in drums, as appropriate. The new well will be purged and sampled at least 24 hours after installation and development.

The soil samples will be scanned with Herzog's gas chromatograph (GC) in order to choose samples to be quantitatively analyzed at a certified chemical testing laboratory. Analytical samples will be limited to about six soil samples and six groundwater samples.

Cloverdale Unified School District Mr. James D. McAuley Job No. 15198.1-0-7 February 22, 1989 - Page 3

The samples will be analyzed for total petroleum hydrocarbons (TPH) as gasoline and diesel, and for benzene, toluene, xylene, and ethylbenzene (BTXE). The purge and trap method will be used for sample preparation. The samples will also be analyzed for heavy metals (cadmium, chromium, lead, and zinc) and organic lead. Herzog will compile the data from the field program and prepare a final project report, a copy of which we recommend you send to the RWQCB.

A cost estimate and Technical Services Agreement (TSA) for the required work are attached to this work plan. Our work will be performed in accordance with the TSA, provided we receive authorization within 30 days. Once the regulatory agencies have approved the work plan, we can proceed with the work. Additional information will be required from the RWQCB prior to obtaining a permit for the monitoring wells. This information will be provided as part of the permit application process.

Please sign a copy of the TSA and mail it back to confirm your authorization. Work required by the project should be completed within six to eight weeks following receipt of written approval to begin.

We look forward to hearing from you soon, and we thank you for the opportunity to be os service. If you have questions regarding this work plan, please call.

Sincerely,

HERZÓG ASSOCIATES, INC.

Ralph M. Pattison

Civil Engineer - 044130

Marc Seeley

Certified Engineering Geologist

Manager, Environmental Services Division

RP:cmc/S26-33

Attachments:

Schedule of Charges

General Conditions

Herzog Associates Geoscientists 275 Miller Avenue Mill Valley, California 94941 Tel (415) 383-7740 Fax (415) 383-1821

TECHNICAL SERVICES AGREEMENT

HERZOG

Between

Herzog Associates, Inc.

and

Cloverdale Unified School District

Job No. 15198.1-0-7

February 15, 1989

In accordance with your request, we are pleased to provide this Technical Services Agreement (TSA) between Herzog Associates (Herzog), of Santa Rosa, California, and Cloverdale Unified School District (CUSD), of Cloverdale, California. This TSA describes the Scope of Services, Schedule and Estimated Budget for work on the project entitled:

Site Investigation of Hazardous Contamination Cloverdale High School and Washington Street Elementary School Cloverdale, California

L BACKGROUND

Herzog's scope of services is based upon the following information:

- 1) Two underground liquid storage tanks were excavated and removed from the Cloverdale High School site on July 17, 1986. One underground liquid storage tank was excavated and removed from the Washington Street Elementary School site on July 28, 1986.
- 2) The two tanks at the high school site were a 1000 gallon diesel tank and a 350 gallon gasoline tank. The tank at the elementary school site was a 1000 gallon gasoline tank. This tank may also have been used to store heavy petroleum hydrocarbons.
- Soil and water samples were taken from within the tank excavations by Herzog Associates and tested by Multi-Tech Laboratories for evidence of petroleum contamination. At the high school site grab samples from directly below the diesel tank showed heavy hydrocarbon concentrations of 620 to 730 mg/kg. At 5.5 feet below the tanks, the concentrations in two grab

samples were at or below 31 mg/kg. Below the gasoline tank, the light hydrocarbon concentration in a grab sample directly below the tank was 880 mg/kg and 800 mg/kg 5.5 feet below the tank.

At the elementary school site, the groundwater level was close to the bottom of the tank. In three soil samples taken from the tank-removal excavation, light and heavy hydrocarbon levels were below detectable limits but a water sample was shown to have a light hydrocarbon level of 16,000 ug/L.

II. SCOPE OF WORK

Herzog shall perform a limited investigation of the site to qualitatively assess the lateral and vertical extent of petroleum at both of the two sites. The study will include site data collection, an evaluation of surficial site features, and subsurface sampling and testing with the objective of assessing the potential for the presence of petroleum hydrocarbons.

The actual scope of work will be determined by the client, the RWQCB and the Sonoma County Department of Environmental Health. However, it is anticipated that the work shall entail the following four tasks:

Task 1: Data Collection

Task 2: Field Sampling

Task 3: Sample Analyses

Task 4: Report Preparation

A description of each task is presented below.

TASK 1: Data Collection

The purpose of this task is to collect data on the use and history of the site. Readily available information about handling and storing of petroleum products shall be obtained. Documentation and paperwork regarding past operations at the site and the studies that have been prepared since the tanks were removed shall be reviewed. Available published and unpublished geologic, geotechnical, and

hydrologic information on the site vicinity shall also be reviewed.

TASK 2: Field Sampling

The objectives of this task will be to qualitatively assess the characteristics of soils and groundwater at the site. Field activities shall entail the following:

Soil Sampling - Soil samples shall be collected from a total of 6 borings drilled with a truck-mounted hollow stem auger rig. Three borings will be located at each site, and at least one of the borings at each tank location shall be located within 10 feet of the former tank site in the down gradient direction, as estimated by the results of Task 1. Soil samples shall be taken throughout each boring at approximately 5-foot intervals. The borings shall be advanced with a hollow stem auger and soil samples obtained by driving, in advance of the borehole, a Modified California Sampler (or equivalent) lined with brass tubes.

Sample Handling - Brass tubes shall be sealed with aluminum foil, taped, capped, labeled, and packed in ice for transport under chain-of-custody procedures to Herzog's laboratory in Santa Rosa, California.

Decontamination - Excavation and sampling equipment shall be decontaminated prior to use and between sample drives to prevent cross contamination. Sampling equipment shall be precleaned prior to obtaining each sample with a trisodium phosphate solution and potable water, followed by two distilled water rinses. Additional rinsing procedures may be used as deemed necessary.

Monitoring Well Installation - The three borings at each site shall be completed and developed as groundwater monitoring wells, in accordance with regulatory requirements. The borings shall be augered to a depth of approximately 15 feet below the site groundwater level. The monitoring wells shall be constructed by installing 2-inch or 4-inch diameter flush-jointed PVC casing with factory-slotted well screen into the borehole. The annular space between the PVC casing and borings shall be backfilled with clean sand pack to approximately one foot above the slotted casing. The gradation of the sand pack shall be selected based upon the visible characteristics of the soil encountered. A sieve analysis shall be performed on the soils to confirm the sand pack selection. Bentonite shall be placed above the sand to seal off the slotted portion of the casing from material above it. A neat cement (bentonite-cement slurry) or equivalent material shall be placed above the bentonite pellets. A protective locking cover shall be placed over

- must be contained

the casing to protect the well's integrity.

Well Development and Sampling - The monitoring wells shall be developed by bailing to remove loose material from within the well casing. Prior to development, the stabilized water level in the wells shall be accurately measured. Three to five well volumes shall then be removed during which water clarity and volume, pH, and conductivity shall be monitored. Samples shall then be collected in laboratory-supplied sterile containers. Samples shall be capped air tight, placed on ice and transported to a State certified analytical laboratory following chain-of-custody protocol. We will also obtain well elevations to study groundwater gradients.

Soil and Water Waste - Waste soils produced from drilling and sampling activities shall temporarily be placed on and covered with Visqueen at the site pending results of chemical analyses. Water from well development shall be stored in drums at the site. Waste disposal, if it is necessary, shall be the responsibility of the client; however, Herzog shall assist in coordinating these activities. The cost of waste disposal will be dependent on reported concentrations, amounts and type of waste encountered.

It is assumed that there will be ready access to the site. Possible delays or modifications to the work plan due to permitting delays, access difficulties or adverse weather conditions are not budgeted.

TASK 3: Chemical Analysis

The soil samples shall be screened for volatile organic compounds (VOC's) with Herzog's portable gas chromatograph (GC). Soil samples that show elevated concentrations of volatile organics and the water samples shall be transported to an outside laboratory for confirmation analysis and to determine concentrations of petroleum contamination.

Six soil samples and six water samples are budgeted for chemical analysis. The samples shall be analyzed for total light petroleum hydrocarbons (TPH). In addition, they shall be analyzed to determine levels of benzene, toluene, xylene, and ethylbenzene (BTXE), which are constituents commonly found in petroleum fuel. The purge and trap method shall be used for sample preparation. The samples shall also be analyzed for heavier hydrocarbons as diesel. At the

recommendation of the RWQCB, samples will also be tested for heavy metals (cadmium, chromium, zinc and lead) and for organic lead.

TASK 4: Report Preparation

Herzog shall review the results of TASKS 1, 2, and 3 and assess the extent of site contamination at both sites. If test results show that contamination has exceeded the extent anticipated by this scope of work, further borings may be required. The program does not include determining the environmental public health impact of known or suspected contamination. The information collected, analytical results, and Herzog's conclusion and recommendations will be summarized in a report to the client.

III. SCHEDULE

Herzog shall start working on this project upon receipt of notice to proceed. Once Herzog is authorized to proceed in writing, it is estimated that Tasks 1 and 2 described above can be completed in four weeks. The chemical testing laboratory usually requires three weeks for testing. Therefore, a report should be prepared in about eight weeks.

IV. BUDGET

Herzog shall perform its services on a time-and-expense basis in accordance with the attached Schedule of Charges and General Conditions. The actual fee will be dependent upon the quantity of work required, analysis required, response of outside contacts, and weather. Therefore, an exact fee for the program described above is difficult to estimate at this time. However, for the scope of work described, Herzog shall not exceed a cost of \$27,000 without express permission from the client. A detailed cost estimate is provided in Table 1. Increases in the scope of work will increase the budget, and shall be pre-authorized by the client. This proposal is valid for a period of 30 days.

V. TERMS AND CONDITIONS

If additional sampling and analysis, meetings, or consultations are required, these services will be in addition to the above estimate and will be charged for in accordance with Herzog's Schedule of Charges. Furthermore, surveying of the site and establishing

elevation with respect to mean sea level datum is also the responsibility of the client, if required. Any contaminated soils or water encountered during Herzog's field work will remain on the property, and it will be the client's responsibility to properly dispose of these materials.

Please confirm your authorization of the work plan and budget by dating, signing, and returning one copy of this TSA. If you have questions, please call.

In witness thereof, the parties hereto have entered into this Agreement effective as of

RP:cmc/S26-32

Table 1. Cloverdale Unified School District

COMPANY CONFIDENTIAL

COMPANY CONFIDENTIAL

HERZOG ASSOCIATES 1989 COST ESTIMATE WORK SHEET

JOB NAME:

Cloverdale Unified School District

JOB NUMBER:

15198.1-0-7

TYPE OF CONTRACT: Time and Materials DATE OF PROPOSAL: February 14, 1989.

1. PROFESSIONAL LABOR CATEGORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
Director/Hydrogeologist	24	\$115.00	\$2760.00	
Associate Engineer/Hydrologist	12	\$94.00	\$1128.00	
Senior Engineer/Hydrologist	6	\$92.00	\$552.00	
Sr. Field Engineer/Hydrogeologist	18	\$84.00	\$1512.00	
Staff Engineer	83	\$64.00	\$5312.00	
Staff Hydrogeologist	23	\$58.00	\$1334.00	
Drafting	4	\$38.00	\$152.00	
Secretary	13	\$38.00	\$494.00	

TOTAL LABOR COST:

\$13244.00

Total Hours:

183

Average Man/Hour Cost: \$72.37

* Labor rates are fully burdened

	Santa Rosa,	California to	Cloverdale,	California
2. TRAVEL		Trips/days	Fare/rate	Cost
	Air fare:	0	\$0.00	\$0.00
	Per Diem:	0	\$65.00	\$0.00
	Truck/car:	3	\$64.00	\$192.00
	Park/misc.:	0	\$0.00	\$0.00

TOTAL TRAVEL COST:

\$192.00

3. OTHER DIRECT TASK COSTS:

WORK PLAN/PERMITS	\$200
CONTRACT/PROJECT ADMINISTRATION	\$450
HISTORY SEARCH/LITERATURE REVIEW	\$25
SITE VISIT	\$0
FIELD INVESTIGATION	\$5,760
LABORATORY ANALYSIS	\$6,684
DATA ANALYSIS	\$240
REPORT	\$75
CONSULTING/REGULATORY COMPLIANCE	\$0

TOTAL FIELD/LABORATORY/OTHER DIRECT COSTS: \$13434.00

TOTAL ESTIMATED PROJECT COSTS: \$26870.00

Table 1. Cloverdale Unified School District

JOB NUMBER:

Cloverdale Unified School District

JOB NAME:

15198.1-0-7

TYPE OF CONTRACT: Time and Materials

DATE:

February 14, 1989.

WORK PLAN/PERMITS

LABOR CATEGORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
Director/Hydrogeologist	2	\$115.00	\$230.00	
Associate Engineer/Hydrologist	ĩ	\$94.00	\$94.00	
Senior Engineer/Hydrologist	Ô	\$92.00	\$0.00	
Sr. Field Engineer/Hydrogeologist		\$84.00	\$168.00	
Staff Engineer	2 8 2 0	\$58.00	\$464.00	
Staff Hydrogeologist	2	\$58.00 \$58.00	\$116.00	
Drafting	ñ	\$38.00	\$0.00	
Secretary	2	\$38.00	\$76.00	
Secretary	L		BOR COST:	\$1148.00
		IOIALLA	DOK COST:	\$1140.00
TASK OTHER DIRECT COSTS:	Number	Rate	Total Cost	
1. Drilling permits/fees	(\$0.00	\$0.00	
2. CalTrans permits		\$0.00	\$0.00	
3. County documentation		\$50.00	\$200.00	
J. County Communication		. 450.00	4200.00	•
		ODC Cost:	\$200.00	
CONTRACT/PROJECT ADMINISTRATION				-
LABOR CATEGORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
Director/Hydrogeologist	3	\$115.00	\$345.00	
Associate Engineer/Hydrologist	, 2	\$94.00	\$188.00	
Senior Engineer/Hydrologist	, <u>o</u>	\$92.00	\$0.00	
Sr. Field Engineer/Hydrogeologist	ŏ	\$84.00	\$0.00	
Staff Engineer	4	\$58.00	\$232.00	l .
Staff Hydrogeologist	Ŏ	\$58.00	\$0.00	•
Drafting	ŏ	\$38.00	\$0.00	
Secretary	1	\$38.00	\$38.00	
, bootomy	•		BOR COST:	\$803.00
		·	DON COO1.	Ψ005.00
TASK OTHER DIRECT COSTS:	Number	Rate	Total Cost	
1. Health and Safety Plan preparation	•	\$350.00	\$350.00	
2. Drilling contract preparation		\$50.00	\$100.00	
3. USA site evaluation meeting		\$0.00	\$0.00	
4. Other		\$0.00	\$0.00	

ODC Cost:

\$450.00

Table 1. Cloverdale Unified School District

JOB NUMBER:

Cloverdale Unified School District

JOB NAME:

15198.1-0-7

TYPE OF CONTRACT: Time and Materials

DATE:

February 14, 1989.

HISTO

HISTORY SEARCH/LITERATURE REVIEW		•		
LABOR CATEGORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
Director/Hydrogeologist	0	\$115.00	\$0.00	
Associate Engineer/Hydrologist	1	\$94.00	\$94.00	
Senior Engineer/Hydrologist	0	\$92.00	\$0.00	
Sr. Field Engineer/Hydrogeologist	2	\$84.00	\$168.00	
Staff Engineer	4	\$58.00	\$232.00	
Staff Hydrogeologist	0	\$58.00	\$0.00	
Drafting	0	\$38.00	\$0.00	
Secretary	1	\$38.00	\$38.00	
		TOTAL LA	BOR COST:	\$532.00
TASK OTHER DIRECT COSTS:	Number	Rate	Total Cost	
1. Air photographs	(0 \$1.00	\$0.00	
2. Literature search	•	1 \$50.00	\$50.00	
3. Computer time	:	2 \$40.00	\$80.00	
4. Other	4	0 \$0.00	\$0.00	
5. Other	+	0 \$0.00	\$0.00	
•		ODC Cost:	\$130.00	
SITE VISIT				
LABOR CATEGORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
Director/Hydrogeologist	3	\$115.00	\$345.00	
Associate Engineer/Hydrologist	0	\$94.00	\$0.00	
Senior Engineer/Hydrologist	0	\$92.00	\$0.00	
Sr. Field Engineer/Hydrogeologist	0	\$84.00	\$0.00	
Staff Engineer	0	\$58.00	\$0.00	
Staff Hydrogeologist	5	\$58.00	\$290.00	
Drafting	0	\$38.00	\$0.00	
. Secretary	0	\$38.00	\$0.00	•
		TOTAL LA	BOR COST:	\$635.00

TASK OTHER DIRECT COSTS: Number Rate Total Cost

> 1. Site visit expenses 2 \$20.00 \$40.00

> > ODC Cost: \$40.00

Table 1. Cloverdale Unified School District

JOB NUMBER:

Cloverdale Unified School District

JOB NAME:

15198.1-0-7

TYPE OF CONTRACT: Time and Materials

DATE:

February 14, 1989.

FIELD INVESTIGATION

LABOR CATEGORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
Director/Hydrogeologist	3	\$115.00	\$345.00	
Associate Engineer/Hydrologist	0	\$94.00	\$0.00	
Senior Engineer/Hydrologist	0	\$92.00	\$0.00	
Sr. Field Engineer/Hydrogeologist	6	\$84.00	\$504.00	
Staff Engineer	32	\$58.00	\$1856.00	
Staff Hydrogeologist	8	\$58.00	\$464.00	
Drafting	. 0	\$38.00	\$0.00	
Secretary	2	\$38.00	\$76.00	
·		TOTAL LAI	BOR COST	\$3245.00

Total Hours:

51

Average Man/Hour Cost: \$63.63

TASK OTHER DIRECT COSTS:	Number	Rate	Total Cost	
1. Drill rig	18	\$140.00	\$2520.00	
2. Well materials (L.F. x \$13.00)	150	\$13.00	\$1950.00	
3. Field analysis equipment	3	\$150.00	\$450.00	
4. Cost per sample	40	\$5.00	\$200.00	
5. Site contaminated soil/water storage	. 8	\$50.00	\$400.00	
6. Steam cleaner	2	\$120.00	\$240.00	
		ODC Cost	\$5760.00	

LABORATORY ANALYSIS

LABOR	CATEGORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
	Director/Hydrogeologist	. 0	\$115.00	\$0.00	
	Associate Engineer/Hydrologist	0	\$94.00	\$0.00	
;	Senior Engineer/Hydrologist	4	\$92.00	\$368.00	
	Sr. Field Engineer/Hydrogeologist	4	\$84.00	\$336.00	
	Staff Engineer	4	\$58.00	\$232.00	
	Staff Hydrogeologist	0	\$58.00	\$0.00	
	Drafting	0	\$38.00	\$0.00	
	Secretary	2	\$38.00	\$76.00	
	•		TOTAL LA		\$1012.00

Table 1. Cloverdale Unified School District

JOB NUMBER:

Cloverdale Unified School District

JOB NAME:

15198.1-0-7

DATE:

TYPE OF CONTRACT: Time and Materials February 14, 1989.

TASK OTHER DIRECT COSTS:	Number	Rate	Total Cost
1. Volatile Light HC	12	\$110.00	\$1320.00
2. Extract Heavy HC	12	\$110.00	\$1320.00
3. Volatile HC & BTXE	12	\$160.00	\$1920.00
4. Organic Lead	12	\$72.00	\$864.00
5. Heavy Metals (Soil)	6	\$110.00	\$660.00
6. Heavy Metals (Water)	6	\$100.00	\$600.00
7. AE/BN Extract-625	0	\$460.00	\$0.00
8. AE/BN Extract-8270	0	\$520.00	\$0.00
9. Halocarbons-601	0	\$125.00	\$0.00
10. Halocarbons-8010	0	\$155.00	\$0.00
11. Aromatics-602	0	\$125.00	\$0.00
12. Aromatics-8020	0	\$155.00	\$0.00
13. 601 and 602	0	\$190.00	\$0.00
14. Pesticides / PCB's-608	0	\$155.00	\$0.00
15. Pesticides / PCB's-8080	0	\$190.00	\$0.00
16. PCB only in oil	0	\$95.00	\$0.00
17. 17 CAM Metals	0	\$280.00	\$0.00
18. 13 Priority Metals	0	\$250.00	\$0.00
19. 8 RCRA Metals	0	\$175.00	\$0.00
20. Asbestos	0	\$0.00	\$0.00

ODC Cost: \$6684.00

DATA ANALYSIS

LABOR CATEGORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
Director/Hydrogeologist	5	\$115.00	\$575.00	
Associate Engineer/Hydrologist	4	\$94.00	\$376.00	
Senior Engineer/Hydrologist	2	\$92.00	\$184.00	
Sr. Field Engineer/Hydrogeologist	0	\$84.00	\$0.00	
Staff Engineer	. 3	\$58.00	\$174.00	
Staff Hydrogeologist	0	\$58.00	\$0.00	
Drafting	0	\$38.00	\$0.00	
Secretary	1	\$38.00	\$38.00	
		TOTAL LAI		\$1347.00

Total Hours:

15

ODC Cost:

\$240.00

Average Man/Hour Cost: \$89.80

TASK OTHER DIRECT COSTS: Number **Total Cost** Rate 1. Computer analysis \$40.00 \$240.00

Table 1. Cloverdale Unified School District

JOB NUMBER:

Cloverdale Unified School District

JOB NAME:

15198.1-0-7

TYPE OF CONTRACT: Time and Materials

DATE:

February 14, 1989.

REPORT

LABOR CATE	GORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
	Director/Hydrogeologist	8	\$115.00	\$920.00	
	Associate Engineer/Hydrologist	4	\$94.00	\$376.00	
	Senior Engineer/Hydrologist	0	\$92.00	\$0.00	
	Sr. Field Engineer/Hydrogeologist	4	\$84.00	\$336.00	
	Staff Engineer	28	\$58.00	\$1624.00	
	Staff Hydrogeologist	8	\$58.00	\$464.00	
	Drafting	4	\$38.00	\$152.00	
	Secretary	4	\$38.00	\$152.00	
-	,	·	•	BOR COST:	\$4024.00
TASK OTHER	DIRECT COSTS:	Number	Rate	Total Cost	
	1. Reporduction costs		1 \$50.00	\$50.00	*
	2. Postage and report handling	:	\$25.00	\$25.00	
	•				
,			ODC Cost:	\$75.00	

CONSULTING/REGULATORY COMPLIANCE

LABOR CATEGORIES:	Hours	Rate/Hour*	Est.Cost	Total Cost
Director/Hydrogeologist	0	\$115.00	\$0.00	
Associate Engineer/Hydrologist	0	\$94.00	\$0.00	
Senior Engineer/Hydrologist	0	\$92.00	\$0.00	
Sr. Field Engineer/Hydrogeologist	0	\$84.00	\$0.00	
Staff Engineer	0	\$58.00	\$0.00	
Staff Hydrogeologist	0	\$58.00	\$0.00	
. Drafting	0	\$38.00	\$0.00	
Secretary	0	\$38.00	\$0.00	
·		TOTAL LAI	•	\$0.00

Total Hours:

Average Man/Hour Cost: #DIV/0!

TASK OTHER DIRECT COSTS:	Number	Rate	Total Cost
1 .	0	\$0.00	\$0.00
	ODC Cost:		\$0.00



DONALD ATES, INC. GEOTECHNICAL CONSULTANTS

REPORT REMEDIAL INVESTIGATION CONFIRMED RELEASE SITE UNDERGROUND STORAGE TANKS CLOVERDALE HIGH SCHOOL AND WASHINGTON STREET ELEMENTARY SCHOOL CLOVERDALE, CALIFORNIA

N. CLOVERDALE S. WASHINGTON

DH&A Job No. 5075.7-4-2

Prepared for

Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

by

DONALD HERZOG AND ASSOCIATES, INC. SANTA ROSA OFFICE

Environmental Engineer

Peter R. Dodsworth, Civil Engineer - 31617

Expires 12-31-88

March 26, 1987

INTRODUCTION

This report presents the results of Donald Herzog and Associates (DH&A) Interim Report two underground for storage tanks located at 509 North Cloverdale Boulevard \bigcirc (Cloverdale High School), and one tank located at 129 South Washington Street (Washington Street Elementary School) in Cloverdale, California. The purpose of this report is to summarize background data and work performed to date, briefly describe the site conditions, and provide recommendations for further site investigation.

BACKGROUND AND WORK PERFORMED

Cloverdale High School

Two underground storage tanks were located at Cloverdale High School, a 1,000 gallon diesel tank and a 350 gallon gasoline tank. On February 21, 1986, a full system test was performed by MRL Underground Tank Testing Inc., of Santa Rosa, California, on both tanks and associated piping. MRL reported that the 1,000-gallon tank was within NFPA 329 standards. However, the 350 gallon tank was shown to have a product loss in excess of NFPA



standards. On March 20, 1986, the 350-gallon tank was pumped dry and sealed. The Regional Water Quality Control Board (RWQCB) and Sonoma County Public Health (SCPH) were notified verbally and in writing.

The tanks were excavated by Petroleum Engineering, Inc., of Santa Rosa, California on July 17, 1986. tanks were removed from the site under EPA manifest by H&H Ship Service Company of San Francisco, California. of the manifest is provided in Appendix B. A DH&A field engineer obtained two grab soil samples from the bottom of the diesel tank excavation (Samples 1 and 2), and one soil sample from beneath the gasoline tank (Sample 3), as shown Plate on Samples were collected by driving split-spoon sampler lined with pre-cleaned brass tubes into The tubes were immediately covered with foil, capped, labeled, placed in an ice chest, and transported to Multi-Tech Laboratories in Santa Rosa, California, on July 17, 1986. for chemical analysis. Chain-of-custody procedures were maintained en-route to the laboratory, a copy of which is attached in Appendix A.

Laboratory data is attached in Appendix A and summarized below in Table 1. Analysis of soil samples from beneath the diesel tank (Samples 1 and 2) indicated total



heavy hydrocarbon concentrations of 620 and 730 mg/kg. Analysis of the soil sample beneath the gas tank (Sample 3) indicated total light hydrocarbon concentration of 880 mg/kg.

On July 28, 1986, Petroleum Engineering removed an additional 5-1/2 feet of soil from the base of the excavation; the soil was stockpiled on Visqueen next to the excavation. A DH&A field engineer observed the excavation procedure, and obtained three additional grab soil samples beneath the diesel tank bedding (Samples 6, 7, and 8) and one soil sample from beneath the gasoline tank bedding (Sample 9), at approximately 10.5 feet from the ground surface. The approximate locations are shown on Plate 1. These soil samples were collected and transported to Multi-Tech Laboratories according to the methods described above.

The laboratory analysis results are attached in Appendix A. As summarized in Table 1, concentrations of heavy hydrocarbons were found to be 31 mg/kg and <10 mg/kg (below detection limits). Analysis of total light petroleum hydrocarbons indicated a concentration of 800 mg/kg. Sample 6 was not analyzed.

TABLE 1

RESULTS OF CHEMICAL ANALYSIS
CLOVERDALE HIGH SCHOOL

Sample I.D.	Tank <u>Type</u>	Depth (feet)	Heavy Hydrocarbons (mg/kg)	<u>Light</u> Hydrocarbons (mg/kg)
1	Diesel Tank	5.0	620	
2	Diesel Tank	5.0	730	
3	Gasoline Tank	5.0		880
7	Diesel Tank	10.0	<10	
8	Diesel Tank	10.5	31)	
9	Gasoline Tank	10.5		800

We understand the excavated soil is presently stockpiled on-site and covered with Visqueen. The excavation was backfilled by Petroleum Engineering with pea gravel after soil samples were obtained.

Washington Street Elementary School

One 1000-gallon steel gasoline tank was located at Washington Street Elementary. We understand the tank may have stored heavy petroleum hydrocarbons at one time. The date of installation is unknown.

Petroleum Engineering excavated the site on July 28, 1986, and H&H Ship Service removed the tank from the site under EPA manifest. A DH&A field engineer observed the removal operations. During excavation, water was observed within the excavation at a depth of approximately 5 feet from the ground surface; free product was floating on top of the water. A DH&A field engineer obtained a sample of the water (Sample 11) within the excavation, and placed same in a pre-cleaned glass jar which was sealed and labeled. The remaining water was subsequently pumped out of the excavation and transported off-site by H&H Ship Service under EPA manifest. Copies of the EPA manifests are attached in Appendix B.

Two grab soil samples (Samples 4 and 5) were obtained from the open excavation at the locations shown on Plate 2. Sample 4 was taken from the side wall of the excavation at approximately 4-1/2 feet from the ground surface (above the standing water level). Sample 5 was obtained beneath the tank bedding at a depth of approximately 9 feet. samples were obtained according to EPA protocol, described above, and transported to Multi-Tech Laboratories for chemical analysis following chain-of-custody Chain-of-custody records and laboratory test results are presented in Appendix A.



The water sample was analyzed for total light petroleum hydrocarbons, and the soil samples were analyzed for total light and heavy petroleum hydrocarbons. The results are summarized below in Table 2. Analysis of the water sample indicated a light hydrocarbon concentration of 16,000 ug/l. Analysis of the soil samples indicated no lipper detectable concentrations of light or heavy hydrocarbons (<10 mg/kg).

TABLE 2
RESULTS OF CHEMICAL ANALYSIS WASHINGTON STREET ELEMENTARY

Sample I.D.	<u>Matrix</u>	Depth (feet)	Heavy Hydrocarbons (mg/kg)	Light Hydrocarbons (mg/kg)	
4	soil	4.5	<10	<10	
5	soil	9.0	<10	<10	
11	water	5.0	 .	16,000*ppb	or 16 pm

^{*} ug/1(ppb)

Soil generated from the removal operation is presently stockpiled on-site and is covered by Visqueen. The excavation has been backfilled with pea gravel and fill.

CONCLUSIONS AND RECOMMENDATIONS

The results of the analyses indicate that gasoline and diesel above 100 mg/kg has been released into natural soils at Cloverdale High School. It appears that the release of gasoline is more significant.

At Washington Street Elementary, gasoline and diesel contamination was found to be below detection limits in the soil samples. However, analysis indicated slightly elevated levels of contamination of standing water, in the excavation.

Determination of the horizontal and vertical extent of subsurface contamination was not included in this phase of the investigation. Since petroleum contamination in excess of 100 mg/kg has occurred at the High School, we recommend the following actions to comply with RWQCB and SCPH requirements:

 Locate existing wells within 500 feet of the site to evaluate potential impacts to usable ground water.



- 2. Further evaluate the horizontal and vertical extent of contaminated soil.
- 3. Evaluate potential contamination of ground water by installation of at least one ground water monitoring well.
- 4. Prepare conclusions and recommendations for additional work and/or clean-up, as necessary.

The above issues should be coordinated with the Regional Water Quality Control Board and with the Sonoma County Public Health.

SUPPLEMENTAL SERVICES

Following review of this report by District representatives and the local regulatory agencies, we will be pleased to provide supplemental consultation and submit a detailed work plan for further site investigation. If you have any questions concerning the information in this report or would like our assistance in resolving future concerns, please do not hesitate to contact Anne Prouty or Peter Dodsworth.

AP:PRD:dec (375.13)

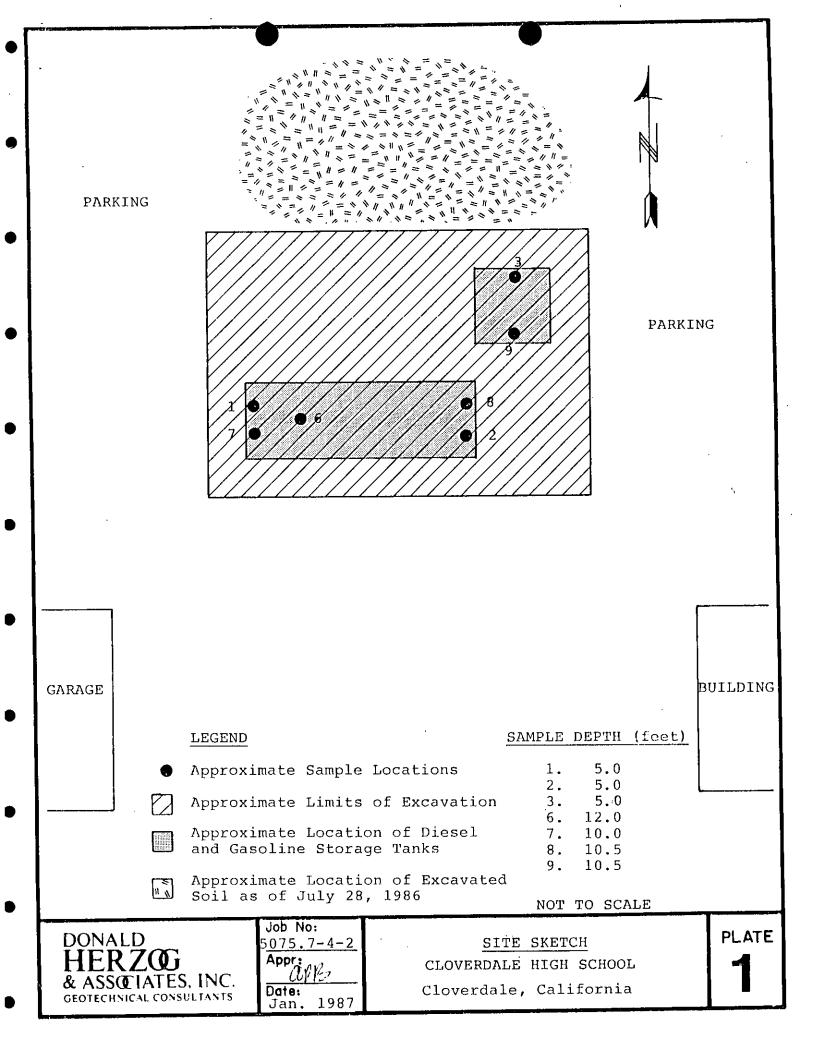
ATTACHMENTS

Plate 1 - Site Sketch, Cloverdale High School

Plate 2 - Site Sketch, Washington Street Elementary

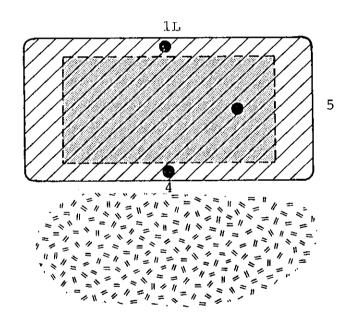
Appendix A - Chain-of-Custody Forms and Laboratory Results

Appendix B - Uniform Hazardous Waste Manifests









	LEGEND	SAMPLE DEPTH (feet)
•	Approximate Sample Locations	1L 5.0
	Approximate Limits of Excavation	4. 4.5
	Approximate Location of 1000-Gallon Gasoline Storage Tank	5. 9.0
	Approximate Location of Excavated Soil as of July 28, 1986	NOT TO SCALE

DONALD
HERZO
& ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

Job No: 5075.7-4-2 Appr:

Date: Jan. 1987

SITE SKETCH

WASHINGTON ELEMENTARY SCHOOL Cloverdale, California

PLATE

APPENDIX A

CHAIN-OF-CUSTODY FORMS AND LABORATORY RESULTS



24 M. RUSH

320 TESCONI CIRCLE, SUITE R • SANTA ROSA, CA 95401 • (707) 544-5570

SAMPLE CHAIN OF CUSTODY / WORK ORDER Client's Name SCOE CAMERIZOGY ASSC. AC Phone 23-3880

Address ANTA 1005A, CH (1540) City, State, Zip MAGEWAN -Client's or Representative's Signature ____ (signature authorizes the work and terms listed below) ()
*Terms: Payment is due within 30 days of invoice. A service charge of 1.5% will be added to overque accounts. **All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples. PROJECT NAME CLOVETEDALE (HIGH) SAMPLERS: (Signature) NO. OF 当111人中man REMARKS CON-TAINERS DATE TIME STATION LOCATION STA NO. NEST END (DIEGEL) 1100 197 7660 FAST FNO COICSEL 710601 CENTER (GAS) DRIVING TIME: Received by: (Signature) Jalla MANTOL TOTAL: START: FINISH: SIGHT TIME: Relinquished by: (Signature) TOTAL. START: FINISH FEES/HOUR/MILE: TOTAL TIME: Relinguished by: (Signature) Time Received by: (Signature) MILEAGE:



SAMPLE CHAIN OF CUSTODY / WORK ORDER

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SAMPLE CHAIN OF CUSTODY / WORK ORDER

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Multi-Tech

320 FESCONI CIRCLE, SUITE R . SANTA ROSA, CA. 95401 . (707) 544-5570

AUG PROBED

7-21-86

Sonoma County Office of Education 3000 Cleveland Avenue Santa Rosa, CA 95407

C/O Donald Herzog & Assoc.

SAMPLE NUMBER:

6-7659

Date collected: 7-17-86
Date in lab: 7-17-86
Collected by: Client
Sample type: Soil

Client's ID:

West End Cloverdale High 5075.7-2-2

Total Heavy Hydrocarbons, Group B, 620 mg/kg

Note: The above value is based on calibration with diesel fuel as a standard. The detector used is a flame ionization detector.

Analytical Director

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Multi-Tech

Laboratories. Inc.

J20 TESCONI CIRCLE, SUITE R + SANTA ROSA, CA 95401 + (707) 544-5570

AUG 7 1886

7-21-86

Sonoma County Office of Education 3000 Cleveland Avenue Santa Rosa, CA 95407

C/O Donald Herzog & Assoc.

SAMPLE NUMBER:

6-7660

Date collected: 7-17-86
Date in lab: 7-17-86
Collected by: Client
Sample type: Soil

Client's ID:

East End, Cloverdale High, 5075.7-2-2

Total Heavy Hydrocarbons, Group B, 730 mg/kg

Note: The above value is based on calibration with diesel fuel as a standard. The detector used is a flame ionization detector.

Analytical Director

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7-21-86

Sonoma County Office of Education 3000 Cleveland Avenue Santa Rosa, CA 95401

C/O Donald Herzog & Assoc.

SAMPLE NUMBER:

6-7661

Date collected: 7-17-86
Date in lab: 7-17-86
Collected by: Client
Sample type: Soil

Client's ID:

Center, Cloverdale, High, 5075.7-2-2

Total Light Hydrocarbons, Group B, 880 mg/kg

Note: The above value is based on calibration with gasoline as a standard. The detector used is a flame ionization detector.

Analytical Director

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JUL 84 1986

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Laboratories, Inc.
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RECEIVED AUG 1 1986 D.H. & A.

7-30-86

Sonoma County Office of Education c/o Donald Herzog and Associates 3000 Cleveland Avenue Santa Rosa, CA 95401

SAMPLE NUMBER:

6-8165

Date collected: 7-28-86
Date in lab: 7-29-86
Collected by: Client
Sample type: Soil

Client's ID:

5075-7-3-2, Cloverdale Unified H.S.

West End Diesel 10', Station #7

Total Heavy Hydrocarbons, Group B, <10 mg/kg

Note: The above value is based on calibration with diesel fuel as a standard. The detector used is a flame ionization detector.

Analytica Director

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Laboratories, Inc.

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7-30-86

Sonoma County Office of Education c/o Donald Herzog and Associates 3000 Cleveland Avenue Santa Rosa, CA 95401

SAMPLE NUMBER:

6-8166

Date collected: 7-28-86
Date in lab: 7-29-86
Collected by: Client
Sample type: Soil

Client's ID:

5075-7-3-2, Cloverdale Unified H.S. East End Diesel 10.5', Station #8

Total Heavy Hydrocarbons, Group B, 31 mg/kg

Note: The above value is based on calibration with diesel fuel as a standard. The detector used is a flame ionization detector.

Analytical Director

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Multi-Tech
aboratories, Inc.
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7-30-86

Sonoma County Office of Education c/o Donald Herzog and Associates 3000 Cleveland Avenue Santa Rosa, CA 95401

SAMPLE NUMBER:

6-8164

Date collected: 7-28-86
Date in lab: 7-29-86
Collected by: Client
Sample type: Soil

Client's ID:

Center Gas 10.5 ft, Station #9

Broject: 5075-7-3-2, Cloverdale Unified H.S.

Total Light Hydrocarbons, Group B, 800 mg/kg

Note: The above value is based on calibration with gasoline as a standard. The detector used is a flame ionization detector.

Analytical Director

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Laboratories, Inc.

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7-30-86

Sonoma County Office of Education c/o Donald Herzog and Associates 3000 Cleveland Avenue' Santa Rosa, CA 95401'

SAMPLE NUMBER:

6-8162

Date collected: 7-28-86
Date in lab: 7-29-86
Collected by: Client
Sample type: Soil

1. Jane

Client's ID:

5075-7-3-2, Cloverdale Unified H.S.

Center Tank South End 4'5", Station #4

Total Light Hydrocarbons, Group B, <10 mg/kg

Note: The above value is based on calibration with gasoline as a standard. The detector used is a flame ionization detector.

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7-30-86

Sonoma County Office of Education c/o Donald Herzog and Associates 3000 Cleveland Avenue Santa Rosa, CA 95401

SAMPLE NUMBER:

6-8163

Date collected: 7-28-86
Date in lab: 7-29-86
Collected by: Client
Sample type: Soil

Client's ID:

Center Tank 9 ft, Station #5

1 1000

Project: 5075-7-3-2, Cloverdale Unified ALS.

Total Light Hydrocarbons, Group B, <10 mg/kg

Note: The above value is based on calibration with gasoline as a standard. The detector used is a flame ionization detector.

Analytical Director

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8-12-86

Donald Herzog & Associates 3000 Cleveland Avenue Santa Rosa, CA 95401

Ref: Sonoma County Office of Education

SAMPLE NUMBER:

6-8211

Date collected: 7-29-86
Date in lab: 7-29-86
Collected by: Client
Sample type: Water

Client's ID:

Project 5075.7.3.2, Boring 1 L 5.5' Washington School

11/11

Total Light Hydrocarbons, Group B, 16,000 ug/I

Note: The above value is based on calibration with gasoline as a standard. The detector used is a flame ionization detector.

Analytical Director

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AUG 1 5 1986

D. H. & A.

APPENDIX B

UNIFORM HAZARDOUS WASTE MANIFESTS

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	4. Generator's Phone (707) \$14-2545	. CLONERU	DACE	B.State	Generator's	ID		ᅱ
	4. Generator's Phone (707) 894-2549		CAI	42.65		-:	a 	
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	7. Transporter 2 Company Name 8.	US EPA ID Num	ber		e Transporter's		7	_
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	9. Designated Facility Name and Site Address 10.				38-00	1-	78	
	11-11 STOP SERVICE 220 CHAL RASIN EAUTRACTICE COMME	AAMOL-	11.5	H.Faci	lity's Phone		535	
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l n	11. US DOT Description (Including Proper Shipping Name, Hazard		No.	Туре	Total Quantity	Unit Wt/Vol	Waste No.	_
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	15. Special Handling Instructions and Additional Information	material de la	Transition of the second	DE TO	the state of			
	16. GENERATOR'S CERTIFICATION: I hereby declare that the cor	itents of this consignme	nt are full	v and ac	ocurately descri	bed		
	above by proper shipping name and are classified, packed, m for transport by highway according to applicable internation	arked, and labeled, and a	ire in all re	espects	in proper condi	tion	Date	
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ľ	17. Transporter 1 Acknowledgement of Receipt of Material		1.588	110	1 1 500	3P_	Date	• (
T R A N	Printed/Typed Name	Signature			-		Month Day Ye	ear
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O A	18. Transporter 2 Acknowledgement of Receipt of Material Printed/Typed Name	Signature		•			Date Month Day Ye	
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Γ	19. Discrepancy Indication Space							
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i l t	20. Facility Owner or Operator: Certification of receipt of hazard ltern 19.	dous materials covered	by this m	anifest	except as note	d In	Date	
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	5. Transporter 1 Company Name 8.	US EPA ID Numb	er		e Transport	er's ID	706143
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O T E	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name	Signature					Month Day Yea
Ā	19. Discrepancy Indication Space						<u> </u>
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Ĺ	20. Facility Owner or Operator: Certification of receipt of hazard	ous materials covered b	y this m	anifest	except as no	oted in	Date
Y	Printed/Typed Name	Signature			6.		Month Day Yes
	CHUCKERY WILLEY				1		1//////////////////////////////////////
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Department of Health Services
Toxic Substances Control Division
Sacramento, California

Please print or type. (Form designed for use on eilte (12-pitch) typewriter.) 1. Generator's US EPA ID No. Manifest UNIFORM HAZARDOUS 2. Page 1 Information in the shaded areas Is not required by Federal WASTE MANIFEST Generator's Name and Malling Address A.State Manifest Document Number CATE CONCE CONCE CONCE CONCE 84946999 B.State Generator's ID Generator's Phone (707) 874-2(2)7 Aviie de la company de la comp C.State Transporter's ID D.Transporter's Phone Transporter 2 Company Name E.State Transporter's ID FiTransporter's Phone *** Designated Facility Name and Site_Address G.State Facility's ID 38-co) US EPA ID Number THINK FARM H.Facility's Phone 46? GASIN S.F. KARREGY 721.1.6.8 12.Containers 生活により 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) Total Quantity Unit Waste No. Type a. MAZAROWS LIMETE ያ ወደ 6 CO.1 b. 0 Additional Descriptions for Materials Listed Above K.Handling Codes for Wastes Listed Above 90 % CONTINUE 15. Special Handling Instructions and Additional Information 60661X5 / 61eurs 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and national governmental regulations. Date Printed/Typed Name Month Day Year 17. Transporter 1 Acknowledgement of Receipt of Materials Date Printed/Typed Name Signațure Month Day Year ってとした NOV) 18. Transporter 2 Acknowledgement of Receipt of Materials Date Printed/Typed Name Signature Month Day Year 19. Discrepancy Indication Space Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Date Printed/Typed Name Signature Month Day Year

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DISTRIBUTION

Cloverdale Unified School District (4)
97 School Street
Cloverdale, California 95425
Attention: Mr. Doug Dorman

Sonoma County Public Health (1)

3313 Chanate Road

Santa Rosa, California 95404

Attention: Mr. Mark Sullivan

Regional Water Quality Control Board (1)

1440 Guerneville Road

Santa Rosa, California 95401

Attention: Mr. Mark Harvey

Site Name Cloverdale High School Site ID# 2426
Site Address 509 Cloverdale Blud., Cloverdale
Date of Notification 10-26-92 By Don Sato Firm RP
Excavation Activities
Soil Borings
Monitoring Well: Construct Develop Sample Abandon GW Levels
Site: Consultation Inspection
Underground Tank: New Closure Samples taken
X Other: Meeting & RP and Don ME Edwards at TransTech
Notes Dr. Soto stated funding from Defended Maintenance
fund is still pending, but kedoes not see
a problem.
we discussed TransTeche proposal to perform
further excavation in the area of MW-6, treat
on site and dispose of Redwood Santary, if
Sampling is acceptable. Due to the depth of
seal on MW-6, it offears the well can be
soved. Offer excavation activities are
complete, a seried of monitoring / sampling is
to be conducted to evaluate the offect of removing
the contaminated soil. If contamination
persists then 6. W. remediation will proceed.
Drums from High School and Washington Elmontory
to be combined and trested/ disposed of together.

Distribution:

White: file

Yellow: SFRWQCB NCRWQCB

Date 11-2-92 Time 3 - 3 : 30

Page 1 of _____

February 18, 1992 PW-370



NOV U 2 1992

HAZARDOUS MATERIALS

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR OF THE BOARD WHOSE ADDRESS IS:

CONTRACTORS' STATE LICENSE BOARD 9835 GOETHE ROAD/P.O. BOX 26000 (MAILING ADDRESS) SACRAMENTO, CALIFORNIA 95826

Dr. Donald Sato
District Superintendent
Cloverdale Unified School District
106 East First Street
Cloverdale, California 95425

Proposal
Site Remediation
Cloverdale High School
509 N. Cloverdale Boulevard
Cloverdale, California

Dear Dr. Sato:

This letter presents our proposal to remediate soil and ground-water contamination associated with an underground gasoline storage tank removed from the grounds of Cloverdale High School, 509 North Cloverdale Boulevard, Cloverdale, California.

BACKGROUND

The tank excavation is located in a clear asphalted area near the Bus Maintenance Shop, the tank having been used to fuel school buses in years past. Five soil borings and three monitoring wells have been drilled to investigate the extent of contamination, and a year-long ground-water monitoring program has been conducted. Data from the monitoring program indicate that the ground-water flow is eastward, and that ground-water contamination was found at low levels only in well MW-6, located immediately east (downgradient) of the excavation. The absence of gasoline in soil samples taken from the five soil borings drilled on the periphery of the excavation appears to indicate that the tank itself was not the source of gasoline leakage. The presence of gasoline in a soil sample taken in the boring drilled for well MW-1 appears to indicate that the source of contamination may have been surface spillage of gasoline.

We understand from discussions with Mr. Harold Walton, a District Board of Trustees member, that the area immediately east of the tank excavation, where well MW-6 is located, was the area where school

buses refueled, the gasoline dispenser having been located on the east side of the tank. Mr. Walton recalls that the drivers would fill their tanks to the brim, and that spillage of gasoline onto the asphalt would frequently occur. He also recalls observing gasoline sheen in the cracks of the asphalt when the ground was wet. On our site visit we observed that within a distance of 10 to 15 feet of well MW-5, the asphalt is severely cracked, in contrast to the surrounding asphalt.

SCOPE OF WORK

Our scope of work comprises preparation of a work plan for the site remediation work and conduct of the remediation activities as described below.

Preparation of Work Plan

We will prepare a work plan describing proposed soil and ground-water remediation activities for submission to the Sonoma County Public Health Department (SCPHD) and the California Regional Water Quality Control Board, North Coast Region (Water Board).

Soil Remediation

We believe that the source of ground-water contamination found in well MW-6 is soil in the area of the well that was contaminated by surface spillage of gasoline during school bus refueling. We propose to investigate the extent of soil contamination and remediate disclosed soil contamination by excavating the contaminated soil from this area. Care will be taken not to damage well MW-6 during excavation of the surrounding soil.

The limits of excavation of contaminated soil will be determined by the presence/absence of odor, sheen, or soil discoloration and measurements with an organic vapor meter. We will take confirmatory soil samples on the bottom and side walls of the excavation.

Excavated soil will be stockpiled near the excavation at a location selected by the District. The stockpile will be bermed to prevent storm water runoff and enclosed in plastic sheeting placed below and above the soil. Composite samples for each 50 yards of soil removed will be taken to characterize the soil for onsite treatment or offsite disposal. We anticipate that if necessary, District personnel can turn the soil to lower its gasoline concentration to a level acceptable for disposal or reuse.

The resulting excavation will be backfilled with clean permeable material and resurfaced with asphalt.

Ground-Water Remediation

Remediation of ground-water contamination in the area of well MW-6 will be addressed by periodically infiltrating water amended with live bacterial cultures of hydrocarbon-digesting microbes and their accompanying nutrient formulation into the backfill of the

excavation. We will install access holes through the asphalt concrete paving for this purpose. Initially, dosing of the excavation each month for six months is proposed. Water pumped from one of the uncontaminated monitoring wells would be amended with a microbial formulation and introduced into the tank excavation. Our work plan will include a description of the infiltration program, which we expect would be conducted by District personnel. The work plan will be submitted to the Water Board with a request for Waste Discharge requirements for infiltration of the amended water.

COST ESTIMATE

Our estimate for soil remediation activities is based on excavating, backfilling, and sampling an area 20 feet square by 10 feet deep over a period of three days. The volume of an excavation of these dimensions is about 150 cubic yards (yards). The volume of soil removed is expected to be about 200 yards due to the decrease in soil density that occurs as the soil is excavated. We expect that best time to do the field work is during Easter week vacation in April.

Our estimate for ground-water remediation activities is based on advising District personnel how they would obtain bacterial cultures, carry out the infiltration process, and obtain samples for analysis according to Waste Discharge requirements.

Prepare Work Plan for Soil and Ground-Water Rep	mediation	
FillCipal Hydrodeologist 4 hrs 0 6120	\$ 480	
Project Geologist 16 hrs 0 75	1,200	
Graphics/Clerical 3 hrs @ 40	120	
		\$1,800
		42,000
Excavate Contaminated Soil		
saw cut asphalt concrete (ac) - lump sum	180	
preak, load and transport ac - lump sum	480	
operated backhoe to excavate soil		
16 hrs @ 90	1,400	
backhoe transportation	•	
2 days @ 70	140	
Bobcat to move soil to stockpile		
2 days @ 135	270	
plastic sheeting for stockpile - lump sum	300	
3/4" blue shale base for berm		
5 yards @ 24	120	
bentonite pellets for berm - lump sum	180	
construction labor 32 hrs a 55	1,760	
building permit - lump sum	180	
		5,010
		,
Observe Excavation and Sample Soils		
Project Geologist 16 hrs @ 75	1,200	
vehicle 8 hrs 0 8	64	
sampling supplies - lump sum	50	
laboratory analysis		
8 samples @ 125	1,000	
		2,314
		•

Backfill and Bogumface Burney	•	
Backfill and Resurface Excavation		
3/8" blue shale chips (fill)		
130 yards @ 22	2,860	
operated backhoe to fill excavation		
8 hrs @ 90	720	
compactor for backhoe		
1 day @ 275	230	
filter fabric for top of fill - lump sum	250	
3/4" blue shale sub-base for ac	•	
30 yards @ 24	720	
smooth and compact subgrade - lump sum	240	
asphalt repaying	-10	
400 sq. ft. @ 4.5	1,800	
construction labor 16 hrs @ 55	880	
(33		7 700
		7,700
Coordinate Ground-Water Remediation Activities		
Principal Hydrogeologist 8 hrs @ \$120	\$ 960	
Project Geologist 10 hrs @ 75	•	
2 10 III 6 75	<u>750</u>	
·		<u>1,710</u>
	Total	\$18,534
	10041	740,334

We estimate the cost for the above scope of work will be about \$18,500. We will perform the work on a time-and-expense basis in accordance with the attached Schedule of Charges which are part of this proposal.

We appreciate the opportunity to submit this Proposal and look forward to working with you on this project. If you have any questions, please call.

Very truly yours, TRANS TECH REMEDIATION SERVICES

Douald G. W. Wwards

Dr. Donald G. McEdwards, CE 28088, CEG 1208, REA 735 President and Principal Hydrogeologist

DGM\dmb:01-01.PRP

Attachments: Schedule of Charges



TRANS TECH REMEDIATION SERVICES SCHEDULE OF CHARGES Effective July 23, 1991

	<u>Rate</u>
President/Principal Hydrogeologist	\$120/hr
Vice-President/Principal Engineer	105
Secretary/Word Processing	40
Trans Tech Consultants	Cost plus 5%
Outside Services, Materials, and Expenses	Cost plus 20%
Trans Tech Consultants Personnel Principal Engineer, Geologist Associate Engineer, Geologist Senior Engineer, Geologist Project Engineer, Geologist Staff Engineer, Geologist Technician/Draftsperson Secretary/Word Processor	105 - 120 90 - 105 75 - 90 65 - 75 55 - 65 40 - 45 35 - 40
Per Diem	Quote
Travel Time	Regular rates
Trans Tech Consultants Equipment Geoflo Ground-Water Flowmeter Organic Vapor Analyzer Transducer Fluorometer Explosivity Meter Steam Cleaner Water Sampling Equipment Pump Kit Well Pump Hand Auger Hand Sampler Underground Utility Locator Generator Drill Kit Water Level Meter Flow Meter Personal Protective Equipment (Level D) Truck Brass Tubes	Quote Quote 250/week 100/day 75/day 75/day 75/day 75/day 50/day 50/day 50/day 50/day 25/day 25/day 25/day 25/day 4.00/ea.

TELEPHONE: 707-575-8622

FACSIMILE: 707-575-3394

Herzog Associates Geoscientists

1318 Redwood Way, Suite 200 Petaluma, CA 94954 Tel (707) 792-5600 Fax (707) 792-5695

MECEIVED

OCT 3 0 1991



A member of the [HIH] group of companies HAZANDOUS MATERIALS

October 25, 1991 Project Number 15198.01-01-7

Dr. Donald Sato, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, California 95425

RE: Final Quarter

Groundwater Monitoring and Sampling Program Results Cloverdale High School, 509 Clowerdale Blood.

Dear Dr. Sato:

Herzog Associates (Herzog) is pleased to present the results of the final quarter of our monitoring and sampling program at Cloverdale High School in Cloverdale. California (see Plate 1, Location Map). Included in this report are the results of our June, July, August, and September, 1991, monthly groundwater gradient determinations and our July, 1991 round of quarterly well sampling at the site. Copies of this report are being submitted to the North Coast Regional Water Quality Control Board (Board) and Sonoma County Hazardous Materials Management Program (Hazmat) for their review.

June 1991 Gradient Determination

Groundwater elevations were measured in the three existing monitoring wells at the site on June 26, 1991 (see Plate 2 for Site Plan, Cloverdale High School). The table below lists depths to groundwater, well head elevations and calculated groundwater elevations for the site on that date.

Well	Depth to Water (feet)	Well <u>Elevation*</u>	Groundwater <u>Elevation*</u>
MW-4	11.76	329.86	318.10
MW-5	12.02	330.11	318.09
MW-6	12.80	330.98	318.18

^{*} Elevations relative to Mean Sea Level (MSL) datum.

October 25, 1991 Cloverdale High School

Project Number: 15198.01-01-7

The site groundwater flow direction and gradient were determined using the above data, and are presented on the attached Site Plan (Plate 2).

July 1991 Groundwater Sampling

On July 24, 1991, the three site groundwater monitoring wells were purged and sampled. Samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline, as diesel, and as motor oil, and benzene, toluene, xylenes and ethylbenzene (BTXE). All sampling and sample handling was performed in accordance with the procedures presented in our November 19, 1990 Work Plan and January 22, 1990 Report. Analytical results and chain-of-custody forms from the April groundwater samples are attached for your review. No petroleum hydrocarbon constituents were detected in samples collected from wells MW-4 and MW-5 at Cloverdale High. Analysis of the sample from MW-6 resulted in detection of very low levels of TPH as gasoline (0.49 parts per million, or ppm) and as diesel (1.1 ppm), and benzene (0.5 parts per billion or ppb). No other analytes were detected in the MW-6 well water.

Groundwater elevations in site wells were also measured on July 24, 1991. Results are given below.

Well	Depth to Water (feet)	Well Elevation (MSL)	Groundwater (Elevation (MSL)
MW-4	13.68	329.86	316.18
MW-5	14.06	330.11	316.05
MW-6	14.76	330.98	316.22

The groundwater flow direction and gradient for these data are presented on Plate 2.

August 1991 Gradient Determination

Groundwater elevations were again measured on August 21, 1991 at the subject site. Water elevations are given below.



October 25, 1991 Cloverdale High School

Project Number: 15198.01-01-7

Well	Depth to Water (feet)	Well Elevation (MSL)	Groundwater (Elevation (MSL)
MW-4	14.93	329.86	314.93
MW-5	15.34	330.11	314.77
MW-6	15.97	330.98	315.01

The groundwater flow direction and gradient for these data are presented on Plate 2.

September 1991 Gradient Determination

Groundwater elevations were again measured on September 26, 1991 for a final round of gradient determination. Water elevations are given below.

<u>Well</u>	Depth to Water (feet)	Well Elevation (MSL)	Groundwater (Elevation (MSL)
MW-4	15.61	329.86	314.25
MW-5	16.16	330.11	313.95
MW-6	16.65	330.98	314.33

The groundwater flow direction and gradient for these data are presented on Plate 2.

We trust this provides the information you require at this time. The regulatory agencies will likely require soil remediation at the site. Remediation alternatives were previously discussed in our report dated March 25, 1991. Should you have any questions regarding these or other matters, or you wish to discuss facilitation of site soil remediation, please feel free to contact the undersigned at (707) 792-5600.



October 25, 1991

Cloverdale High School

Project Number: 15198.01-01-7

Yours very truly,

HERZOG ASSOCIATES, INC. Environmental Services Division

his a. Haves

Lisa A. Havens Staff Geologist

Frederick Maurer, Jr. Project Manager

LAH:FM:ts (7609.57)

Attachment: Plate 1 - Location Map

Plate 2 - Site Plan of Cloverdale High School NET Analytical Results and Chain-of-Custody

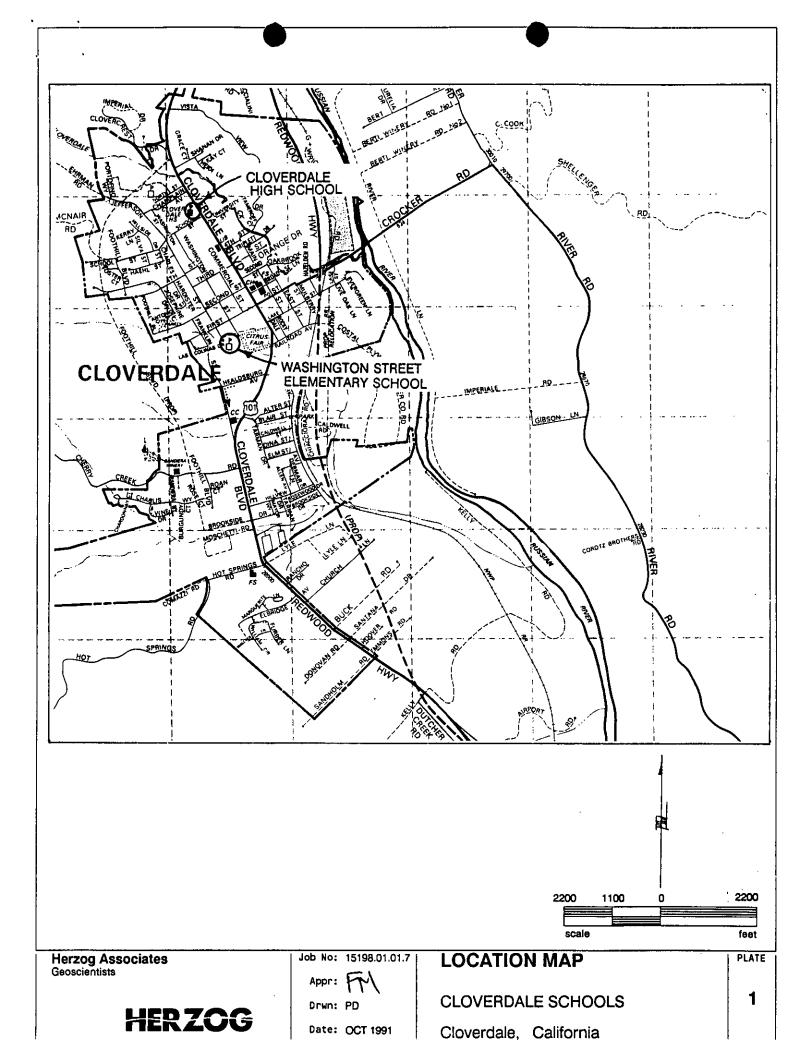
cc: Ms. Susan Warner

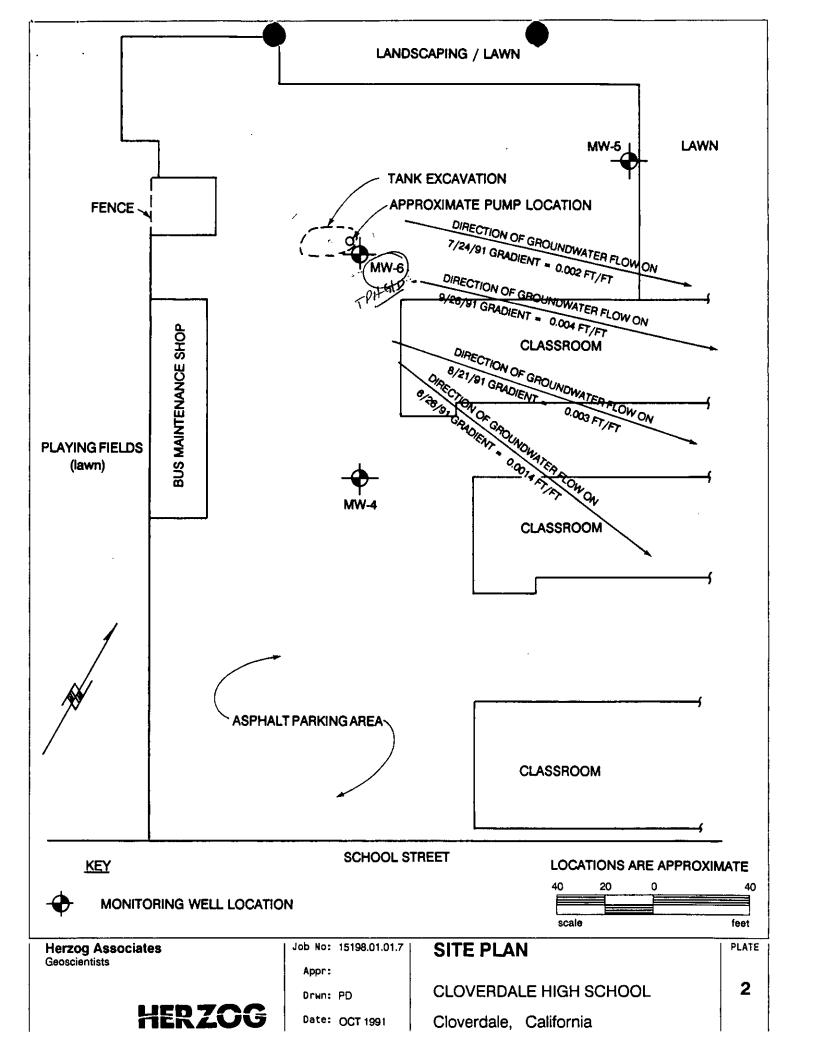
North Coast Regional Water Quality Control Board

1440 Guerneville Road

Santa Rosa, California 95403

Mr. Mark Sullivan Sonoma County Hazmat 1030 Center Drive, Suite A Santa Rosa, California 95403







NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc. 435 Tesconi Circle Santa Rosa, CA 95401

Tel: (707) 526-7200 Fax: (707) 526-9623

Lisa Havens Herzog Associates 1318 Redwood Way, Ste 200 Petaluma, CA 94954 Date: 08-12-91

NET Client Acct No: 307 NET Pacific Log No: 8820 Received: 07-24-91 1720

Client Reference Information

Cloverdale School, Project: 15198.117

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack Laboratory Manager

Enclosure(s)



Client Acct: 307 Client Name: Herzog Associates NET Log No: 8820

Date: 08-12-91

Page: 2

Ref: Cloverdale School, Project: 15198.117

Descriptor, Lab No. and Results

	MW-4 07-24-91	MW-5 07-24-91	MW-6 07-24-91	
Reporting Limit	92680	92681	92682	Units
	1	1	1	
	07-31-91	08-01-91	08-01-91	A .
				ppm Peb
0.05	ND	ND	(0.49)	mg/L 490
	1	1	1	
	07-31-91	08-01-91	08-01-91	ALB
0.5	ND	ND	0.5	ug/L
0.5	ND	ND	ND BMCL	ug/L
0.5	ND	ND	ND	ug/L
0.5	ND	ND	ND .	ug/L
	1	1	1	
	07-28-91	07-28-91	07-28-91	24
				from pps
				mg/L 1100
0.5	ND	ND	ND_	mg/L
	0.05 0.5 0.5 0.5	07-24-91 Reporting Limit 92680 1 07-31-91 0.05 ND 1 07-31-91 0.5 ND	Reporting Limit 92680 92681 1 1 07-31-91 08-01-91 1 1 1 07-31-91 08-01-91 0.5 ND ND ND 0.5 ND ND ND	Reporting Limit 92680 92681 92682



Client Acct: 307 CClient Name: Herzog Associates NET Log No: 8820

Ref: Cloverdale School, Project: 15198.117

QUALITY CONTROL DATA

Date: 08-09-91

Page: 3

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	105	ND	86	78	10
Motor Oil	0.5	mg/L	95	ND	N/A	N/A	N/A
Gasoline	0.05	mg/L	111	ND	104	104	< 1
Benzene	0.5	ug/L	102	ND	89	93	4.0
Toluene	0.5	ug/L	103	ND	93	95	2.6
Gasoline	0.05	mg/L	109	ND	99	99	< 1
Benzene	0.5	ug/L	94	ND	90	97	7.9
Toluene	0.5	ug/L	95	ND	92	94	2.2

COMMENT: Blank Results were ND on other analytes tested.



KEY TO ABBREVIATIONS and METHOD REFERENCES

: Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.

* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample,

(parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed

reporting limit.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample,

(parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

 $\underline{\mathtt{SM}}$: see "Standard Methods for the Examination of Water & Wastewater, $\underline{\mathtt{17}}$ th Edition, APHA, 1989.

HERZOG ASSOCIATES 1318 Redwood Way, Suite 200 Petaluma, CA 94954 707-792-5600

CHAIN OF CUSTODY RECORD

(8820)

PROJECT NUMBER	OJECT NUMBI	ER	PRO	PROJECT NAME	NAMI	`	In Section) a	_	<u> </u>			73	1		///	
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RECEIVED MMK

HAZARDOUS MATERIALS

October 15, 1992

Dr. Donald Sato Cloverdale Unified School District 978 School Street Cloverdale, CA 95425

PACE Project No. 421001 602

Client Reference: Cloverdale

Re: Cloverdale High School 509 cloverdale Berd. Cloverdale, Ca.

Dear Dr. Sato:

Enclosed is the report of laboratory analyses for samples received October 01, 1992.

If you have any questions concerning this report, please feel free to contact us.

Sincerely.

Course E. Saving T. Scott Gibson Project Manager

Enclosures

Kansas City, Missouri

Los Anneles California



Cloverdale Unified School District 978 School Street

Cloverdale, CA 95425

October 15, 1992

PACE Project Number: 421001602

WPPLab Number: 1444

Attn: Dr. Donald Sato

Client Reference: Cloverdale

PACE Sample Number: Date Collected:

Date Received: Client Sample ID:

<u>Parameter</u> Units 70 0217458 10/01/92

10/01/92 (stock pile 101-1 DATE ANALYZÍD

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M) ug/kg wet PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene

Toluene Ethylbenzene

Xylenes, Total EXTRACTABLE FUELS EPA 3550/8015

Extractable Fuels, as Diesel Date Extracted

mg/kg

ug/kg wet

ug/kg wet

ug/kg wet

uq/kq wet

17

MDL

1000

5.0

5.0

5.0

5.0

10/12/92

ND

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ND

10/13/92

10/12/92

10/12/92

10/12/92

10/12/92

10/12/92

10/12/92

10/12/92

MDL

Method Detection Limit

ND Not detected at or above the MDL.

Los Angeles, California



Dr. Donald Sato

Page 2

October 15, 1992

PACE Project Number: 421001602

Client Reference: Cloverdale

 PACE Sample Number:
 70 0217466

 Date Collected:
 10/01/92

 Date Received:
 10/01/92

 Client Sample ID:
 101-2

Parameter Units MDL DATE ANALYZED

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): 10/12/92 Purgeable Fuels, as Gasoline (EPA 8015M) ug/kg wet ND 10/12/92 PURGEABLE AROMATICS (BTXE BY EPA 8020M): 10/12/92 Benzene 5.0 ug/kg wet ND 10/12/92 Toluene ug/kg wet 5.0 ND 10/12/92 Ethylbenzene uq/kg wet 5.0 ND 10/12/92 Xylenes, Total ug/kg wet 5.0 ND 10/12/92 EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as Diesel mg/kg 17 190 ppm 10/13/92 Date Extracted 10/12/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

Los Angeles California



Dr. Donald Sato Page 3			October PACE Pro	15, 1992 ject Number: 421001602
Client Reference: Cloverdale				
PACE Sample Number: Date Collected: Date Received: Client Sample ID:			70 0217474 10/01/92 10/01/92 101-3	OCT 1 9 1992 HAZARDOUS MATERIALS
<u>Parameter</u>	<u>Units</u>	<u>MDL</u>		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet ug/kg wet	5.0	ND - ND ND ND	10/12/92 10/12/92 10/12/92 10/12/92 10/12/92 10/12/92
Xylenes, Total	ug/kg wet	5.0	ND	10/12/92
EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as <u>Diesel</u> Date Extracted	mg/kg	5.0	25 (H) ppm 10/12/92	10/14/92
MDI MALL I D. I. I. I. I.				

MDL	Method	Detection	limit
1105	HELHOU	uetettiin	1 1161 1 1.

ND Not detected at or above the MDL.

Los Angeles California

⁽H) Hydrocarbons greater than C22 were detected.



Dr. Donald Sato

Page

October 15, 1992

PACE Project Number: 421001602

Client Reference: Cloverdale

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID: Parameter

70 0217482

10/01/92 10/01/92 101-4

Units MDL DATE ANALYZED

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet ug/kg wet	5.0	ND ND ND ND	10/08/92 10/08/92 10/08/92 10/08/92 10/08/92 10/08/92
Xylenes, Total	ug/kg wet	5.0	ND	10/08/92
EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as <u>Diesel</u> Date Extracted	mg/kg	17	240 مصر 10/12/92	10/13/92

MDL

Method Detection Limit

ND Not detected at or above the MDL.

These data have been reviewed and are approved for release.

Mark A. Valentini, Ph.D.

Regional Director

Los Anneles California



Dr. Donald Sato Page 5 QUALITY CONTROL DATA

October 15, 1992

PACE Project Number: 421001602

Client Reference: Cloverdale

EXTRACTABLE FUELS EPA 3550/8015

Batch: 70 16194

Samples: 70 0217458, 70 0217466, 70 0217474, 70 0217482

METHOD BLANK:

Parameter

Extractable Fuels, as Diesel

Units mg/kg MDL 5.0 Method Blank ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter Extractable Fuels, as Diesel

Units mg/kg MDL 5.0 Reference Value 33.3

Dupl Recv Recv 92% 89%

 $\frac{\text{Recv}}{89\%} \frac{\text{RPD}}{39}$

MDL

Method Detection Limit

RPD Relative Percent Difference

Los Angeles, California



Dr. Donald Sato Page 6 QUALITY CONTROL DATA

October 15, 1992

PACE Project Number: 421001602

Client Reference: Cloverdale

PURGEABLE FUELS AND AROMATICS

Batch: 70 16077 Samples: 70 0217482

METHOD BLANK:

Parameter TOTAL FUEL HYDROCARBONS, (LIGHT):	<u>Units</u>	MDL	Method Blank
Purgeable Fuels, as Gasoline (EPA 8015M PURGEABLE AROMATICS (BTXE BY EPA 8020M)	ug/kg wet	200	ND -
Benzene Toluene	ug/kg wet ug/kg wet	1.0	ND ND
Ethylbenzene	ug/kgˈwet	1.0	D
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

			Reference		Dupl	
	nits	MDL	Value	Recv	Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M ug	g/kg wet	200	364	95%	97%	2%
	g/kg wet	1.0	40.0	100%	101%	0%
	g/kg wet	1.0	40.0	102%	103%	0%
	g/kg wet	1.0	40.0	98%	99%	1%
Xylenes, Total ug	g/kg wet	1.0	80.0	98%	101%	3%

MDL Method Detection Limit RPD Relative Percent Difference

Le Annolae California



Dr. Donald Sato Page

QUALITY CONTROL DATA

October 15, 1992

PACE Project Number: 421001602

Client Reference: Cloverdale

PURGEABLE FUELS AND AROMATICS

Batch: 70 16159

Samples: 70 0217458, 70 0217466, 70 0217474

METHOD BLANK:

Parameter TOTAL FUEL HYDROCARBONS, (LIGHT):	<u>Units</u>	MDL	Method Blank
Purgeable Fuels, as Gasoline (EPA 8015M PURGEABLE AROMATICS (BTXE BY EPA 8020M)	ug/kg wet	200	ND
Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet	1.0	ND ND ND
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Dawamatau	** **	Reference	Dupl	
<u>Parameter</u>	<u>Units</u> MDL	Value Re	ecv Recv	RPD
Purgeable Fuels, as Gasoline (El			74% 106%	
Benzene	ug/kg wet 1.0	40.0 10	01% 103%	
Toluene	ug/kg wet 1.0	40.0 10	00% 102%	1%
Ethylbenzene	ug/kg wet 1.0	40.0 10	01% 102%	0%
Xylenes, Total	ug/kg wet 1.0	80.0	99% 100%	1%

MDL

Method Detection Limit

RPD

Relative Percent Difference

Los Angeles, California



CHAIN-OF-CUSTODY RECORD Analytical Request 750 Pace Project No. 42001 Stockfile REMARKS Requested Due Date: Pace Project Manager Pace Client No. ACCEPTED BY / AFFILIATION रण है। असमायका विमानाम् मान्य प्राथमा मान्य विमानामा निकाली है। है। हो है। REPORTO: DR. DONAW SATO Project Name / No. Clovendale P.O. # / Billing Reference Jerbal RELINGUISHED BY / AFFILIATION Same **松田の田田の町の中かり PRESERVATIVES** あればないがっ かくす AO/ FON! Cloverdale Dist Attivious Sato. RETURNED / DATE 'loguesta Soil 217458 ٥ 子子 48.2 Genold Shareh: 10-192 TIME MATRIX PACE NO. 1030 Center DR \$ HAZ MAT HEAL by MARK J. Sul Capa of Results JONALD TOKARSKI "Lovendale, CA, 95425 Phon(707) 894-25-48 SAMPLE DESCRIPTION Addiess 97 School - 101 -101 Mileage (90) 4hr Travel time 3hrs at site thr Additional Comments Sampled By (PRINT) COOLER NOS. Sampler Signature カり

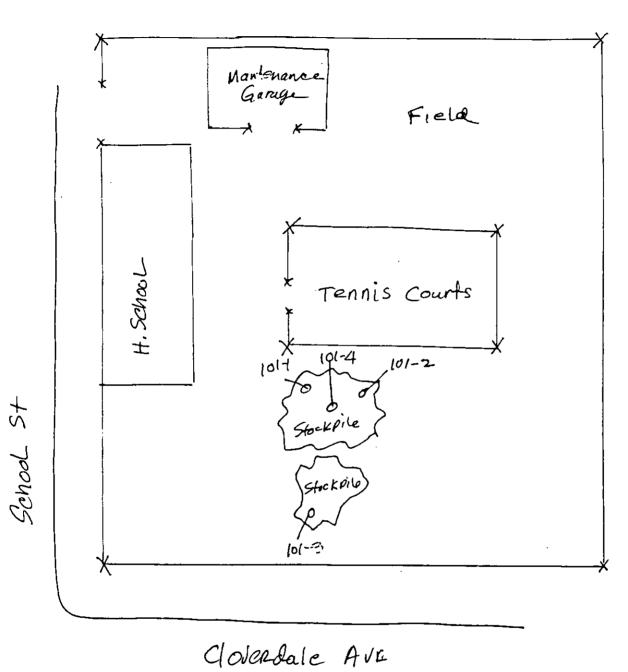
SEE REVERSE SIDE FOR INSTRUCTIONS

Santa Rosa CA. 2067

TOTAL

ORIGINAL

Cloverdale High School 97 School Cloverdale CA.



at site Travel time 3 hrs at site Ihr

Mileage = 90 mile

Mark Sullivan HAZ Mat

Sonoma Co.

TPH Gas IPH Diesel

101-1 101-4

Site N	ame Cloverdale High School Site ID# 2426
Site A	ddress 509 S. Clowedale Blvd., Clowedale
Date c	Notification 9-25-92 By Scott Cabron Firm PACE
	Excavation Activities
_	Soil Borings
	Monitoring Well: Construct Develop Sample Abandon GW Levels
X	Site: Consultation Inspection - Sample soil stockpiles
	Underground Tank: New Closure Samples taken
	Other:
Notes	Site inspection to observe sampling of
	Site inspection to observe sampling of soil stockpilas, four samples taken
	from center of piles: abone native soil.
	· · · · · · · · · · · · · · · · · · ·
	<u>N</u>
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	Tennis (2)
	——————————————————————————————————————
	courts
	*
7	C= Sample locations
Site V	isit By Date Date Time
	oution: White: file Yellow: SFRWQCB NCRWQCB Page 1 of



From the Desk of

Susanne K. Reed

RECEIVED

MAY 2 2 1992

Please Send HAZARDOUS MATERIALS
to Mark

Sullivan

Conty of Smore
Yubble Health

1030 Center DR, Suite A

S.R. 95403

Herzog Associates
Geoscieorists

1018 Nedwood Alay, Buite 200 Hetaluma, DA 9495± Dal (707) 792-5600 Rax (707) 792-5695 RECEIVED

MAY 2 2 1992

HAZARDOUS MATERIALS

February 5, 1992
Project Number 15198.01-02-7

HERIOG

- member of the HIE group in companies

Cloverdale Unified School District 97 School Street Cloverdale, California 95425

Attention:

Dr. Donald Sato

Subject: (

Proposal

509 Cloverdale Burd.

Remediation of Hydrocarbon-Contaminated Soils

Cloverdale High School Cloverdale, California

Dear Dr. Sato:

Herzog Associates (Herzog) is pleased to submit this proposal for remediation of soils impacted by hydrocarbons in the area of the former gasoline and diesel underground storage tanks at the Cloverdale High School. This proposal presents two options for remediation of the contaminated soil and provides cost estimates for the options presented.

BACKGROUND

Herzog performed two phases of site investigation at the Cloverdale High School site. The results of the site assessments indicated minor amounts of contamination (diesel fuel and gasoline) in the soils in the vicinity of the former tank and pump. Although the extent of the contamination has not been defined precisely, the volume of soil impacted appears to be on the order of 500 to 1,000 cubic yards.

The Sonoma County Hazardous Materials Management Program (Hazmat) is requiring a Work Plan/Remedial Action Plan (RAP) be prepared to describe in detail our proposed scope of work at the site. They are requiring excavation of site soils to non-detectable concentrations of total petroleum hydrocarbons (TPH) in the area of the removed tanks. After excavation procedures, the existing well MW-6 will have been destroyed. Hazmat is requiring a replacement well be installed and a minimum of two to three quarters of well monitoring and sampling be performed for the replacement well in addition to the other two existing site wells.

The following is a proposal to prepare a Work Plan/RAP for submittal to the regulatory agencies for approval. Herzog will solicit bids from qualified local contractors for excavation and/or disposal, and will select a contractor to perform the work. We will then arrange for soil excavation and treatment/disposal for up to 1,500 cubic yards (yd³) of contaminated soils. Finally, we will replace well MW-6 and perform up to three quarters of monitoring and sampling of the three site wells.

REMEDIATION OPTIONS

Due to the fine-grained nature of the soils at the site, in-situ treatment of contamination will not be practical. As a result, excavation of the soils will be required. Once excavated, the soils can be handled in one of two ways:

1. Haul and dispose of the contaminated soil at a Class II landfill. The soils will likely classify as non-hazardous waste but will require disposal at an industrial landfill.

The advantage of this option is that the site excavation and backfilling can proceed and the site returned to use rapidly. The disadvantage is that increases in volume of soil to be excavated and disposed, will result in a direct and equivalent increase in total costs. In addition, the School District will retain some long term liability for the wastes disposed.

2. Bioremediate the soil on site (above ground) and then dispose of soils to a Class III landfill. The main advantage of this option is that treatment costs will not increase in direct proportion to increases in the volume of contaminated soil. With bioremediation there is a baseline cost to set-up and run the system. If more soil is added, the minor additional costs incurred are related primarily to the Class III landfill costs. In addition, no liability is retained for disposal at a Class III facility.

The disadvantages of bioremediation are that the process requires several months (3 to 4 months) to complete and the system occupies a relatively large area. Visual impacts and liability concerns will be minimized by the use of fencing.



Other options (including thermal treatment and in-situ methods) were also explored for feasibility during the preparation of this proposal; however, the above two described options were considered to be the best and most cost-effective choices given the observed subsurface materials and conditions at the site.

The preferred choice of the above two options from the School's viewpoint will likely be based on cost. Costs being equal, the quicker, easier landfill disposal option may be preferred. The cost differential between options, however, will be directly proportional to the volume of soil to be remediated/disposed.

If the volume of soil to be handled is on the low side of the estimated volume (i.e. less than approximately 700 yd³) then landfilling is likely the best option. If, however, the volume is higher than 700 yd³, bioremediation becomes more cost effective. For this reason, Herzog recommends that the decision of which method to use be delayed until the excavation has been completed. In that way, both options are held open until cost details are known more accurately.

To avoid delays in the process, Herzog will prepare and have approved, a flexible RAP which will include both options.

The bioremediation process Herzog proposes to use on the site employs a combination of vapor extraction and bioremediation technologies. The excavated soil is placed in piles with slotted PVC piping situated horizontally within the pile. The piles are underlain by a plastic liner with berms to contain runoff. Water and nutrients are added to the top of the pile through an irrigation system. The entire system is covered with plastic. Oxygen is supplied to the system using a blower attached to the horizontal piping. Vapors are extracted through this same piping and treated prior to discharge to the atmosphere with granular-activated carbon. This system maximizes the bioremediation process without taking up much space.

We suggest excavating the soil and placing it onto a liner system designed for bioremediation. If the amount of material is small, the option to dispose the contaminated soil at a landfill can be implemented. If the volume is greater than 700 cubic yards, the bioremediation option can be pursued.



COST ESTIMATES

As mentioned previously in this proposal, the costs for the two options are tied closely to the amount of soil to be treated/disposed. The following tables summarize the estimated costs for the two options based on volume of soil.

OPTION 1
Excavation and Disposal

	250 yd ³	500 yd ³	1,000 yd ³	1,500 yd ³
Excavation	\$1,500	\$3,000	\$5,000	\$7,500
Hauling and Disposal*	40,000	80,000	160,000	240,000
Backfill and Compaction	5,000	8,000	13,000	28,000
Engineering Inspection/ Testing/Closure	6,000	8,000	10,000	14,000
	\$52,500	\$99,000	\$188,000	\$289,500

* Assumes - Disposal and hauling charges of \$160/yd (Class II landfill)

Backfill material at \$10/yard delivered



OPTION 2 Bioremediation

·	250 yd ³	500 yd ³	1,000 yd ³	1,500 yd ³
Permitting & Preparation	\$2,000	\$2,000	\$2,000	\$2,000
Equipment	29,000	29,000	29,000	29,000
Excavation & Construction	12,000	14,000	16,000	18,000
Operations & Monitoring	24,500	24,500	24,500	24,500
Hauling & Disposal (Class III)	10,000	20,000	40,000	60,000
Backfill & Compaction	5,000	8,000	13,000	20,000
Closure Sampling & Reporting	6,000	8,000	10,000	12,500
	\$88,500	\$105,500	\$134,500	\$166,000

ADDITIONAL COSTS FOR BOTH OPTIONS:

Work Plan/Remedial Action Plan	\$7,500
Well Replacement & Quarterly Sampling	\$15,000

WORK SCHEDULE

Herzog is ready to implement this proposal promptly upon receiving formal authorization to proceed from the School District. The permitting and Remedial Action Plan submittal process typically takes about one to two months. If excavation and disposal are used, the entire project can be completed within one month of approval of the RAP by the regulatory agencies. Bioremediation takes approximately 3 to 4 months to conduct following approval of the RAP. We recommend excavation and/or remediation procedures take place during summer months when school is not in session.



Conditions: The following General Conditions are incorporated into and made part of this Proposal:

GENERAL CONDITIONS

- 1. STANDARD OF CARE Services performed by Herzog under this agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession practicing in the same locality under similar conditions at the time the services are provided. No other representation, express or implied, and no warranty or guarantee is included or intended in this agreement, or in any report, opinion, document or otherwise. Herzog's analysis and recommendations will be based upon the results of test borings, or other investigative work. Client recognizes that subsurface conditions may change with time or vary from those encountered at the location where borings or explorations are made by Herzog and that the data interpretations and recommendations of Herzog are based solely on the information available. Herzog will not be responsible for interpretation or use by others of the information developed by Herzog.
- 2. EXCLUSIONS Unless agreed to, in writing, Herzog's scope of work does not include evaluation of soil contamination; soil chemistry; corrosivity; groundwater contaminations; potential hazardous materials; presence or absence of wetlands; approval of or observation of the installation of construction materials; or establishing or verifying construction lines and grades.
- 3. RIGHT OF ENTRY Client shall provide for Herzog's right to enter from time to time property owned by Client and/or others in order for Herzog to fulfill the scope of services included herein. Client understands that use of exploration equipment may cause some damage, the correction of which is not part of this agreement. Client also understands that the discovery of certain conditions and/or taking preventative measures relative to these conditions may result in a reduction of the property's value. Accordingly, Client waives any claim against Herzog, and agrees to defend, indemnify and hold Herzog harmless from any claim or liability for injury or loss allegedly arising from procedures associated with subsurface exploration activities or discovery of hazardous materials or suspected hazardous materials.
- 4. SUBTERRANEAN STRUCTURES Client is responsible for accurately delineating the locations of all subterranean structures (e.g. utilities, underground tanks, etc.). Herzog will take reasonable precautions to avoid known subterranean structures, and Client waives any claim against Herzog, and agrees, to defend, indemnify, and hold



Herzog harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to or caused by subterranean structures not identified or accurately located.

- 5. JOB SITE SAFETY Client agrees that in accordance with generally accepted construction practices, the construction contractor will be required by the Client to assume complete responsibility for job site conditions during the course of construction, including safety of persons and property. Neither the professional activities of Herzog, nor the presence of Herzog employees or subcontractors, shall be construed to imply that Herzog has any responsibility for methods of work performance, superintendence, sequencing of construction, or safety in, on or about the job site.
- SAMPLES Herzog will dispose of all remaining soil and rock samples forty-five (45) 6. calendar days after submission of the report covering those samples. Further storage or transfer of samples can be made at Client's expense upon Client's written request. Should any of these samples be contaminated by hazardous substances or suspected hazardous substances, it is the Client's responsibility to select and arrange for lawful disposal procedures; that is, procedures which encompass removing the contaminated samples, from Herzog's custody and transporting them to a disposal site. Client is advised that, in all cases, prudence and good judgement should be applied in selecting and arranging for lawful disposal procedures. Accordingly, unless Client indicates otherwise within the forty-five (45) day period referenced above, Client hereby instructs Herzog to make arrangements, as Client's agent, for proper transportation and disposal of samples with appropriate licensed parties. Due to the risks to which Herzog is exposed, Client agrees to waive any claim against Herzog. and to defend, indemnify and hold Herzog harmless from any claim or liability for injury or loss arising from Herzog's service as Client's agent in arranging for proper transportation and disposal of contaminated samples, as well as any claim or liability for injury or loss arising from Herzog's containing, labelling, transporting, testing, storing or other handling of contaminated samples.
- 7. NOTIFICATION OF HAZARDOUS MATERIALS When hazardous materials are known, assumed or suspected to exist at a site, Herzog is required to take appropriate precautions to protect the health and safety of all personnel, to comply with applicable laws and regulations and to follow procedures that Herzog deems prudent to minimize risk to employees and the public. Client hereby warrants that if he knows or has any reason to assume or suspect that hazardous materials may exist at the project site, he has so informed Herzog. Client also warrants that he has done his best to inform Herzog of such known or suspected hazardous materials' type, quantity and location.



- 8. MONITORING If Herzog is retained to provide a site representative to monitor specific portions of construction work or other field services as set forth in the proposal, then the following applies: For the specified assignment, Herzog representatives will report observations and professional opinions to Client or his designated representative. No action of Herzog can be construed as altering any agreement between Client and others. Herzog will report to Client any observed Herzog related work which, in Herzog's professional opinion, does not conform with plans and specifications. Herzog has no right to reject or stop work of any agent of the Client. Such rights are reserved solely for Client. Furthermore, Herzog's presence on site does not in any way guarantee the completion or quality of the performance of the work of any party retained by Client to provide field or construction related services.
- 9. TERMINATION Upon the event of substantial failure of performance in accordance with the terms herein by the other party, either party may terminate this agreement upon seven (7) days written notice. In the event of termination by either party, Herzog shall be paid for services performed to the termination notice date plus reasonable termination expenses including the cost of completing analyses, records and reports necessary to document project status at time of termination, costs advanced to other companies or laboratories and for equipment purchased specifically for this project.
- DISPUTE RESOLUTION All claims, disputes and other matters in controversy between Herzog and Client arising out of or in any way related to this agreement will be submitted to "alternate dispute resolution" (ADR) before and as a condition precedent to other remedies provided by law. Since no specific ADR procedures are set forth in this agreement, it is understood that the parties shall submit disputes to mediation as a condition precedent to litigation. If a dispute at law arises from matters related to the services provided under this agreement and that dispute requires litigation instead of ADR then the prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorney fees, and other claim related expenses.
- 11. LIMITATION OF LIABILITY Client agrees to limit Herzog's liability to the Client and all third parties arising from Herzog's professional acts, errors or omissions, such that the total aggregate liability of Herzog shall not exceed \$50,000 or Herzog's total fee for the services rendered on this project, whichever is greater. (If Client wishes to discuss higher limits and the charges involved, he should discuss same with Herzog). Client further agrees to require of the contractor and his subcontractors an identical limitation of Herzog's liability for damages suffered by the contractor or



the subcontractors arising from Herzog's professional acts, errors or omissions. Neither the contractor nor any of his subcontractors assumes any liability for damages to others which may arise on account of Herzog's professional acts, errors or omissions, except as otherwise stipulated herein.

- 12. OWNERSHIP OF DOCUMENTS Unless indicated otherwise in specific project contracts, all reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by Herzog as instruments of service shall remain the property of Herzog. Client agrees that all reports and other work furnished to the Client or his agents, which are not paid for, will be returned upon demand and will not be used by the Client for any purpose whatsoever.
- BILLING AND PAYMENT Herzog will submit invoices to the Client at least 13. Payment is due upon monthly and a final bill upon completion of services. presentation and is delinquent if payment has not been received within thirty (30) days from date of invoice. Client agrees to pay an additional charge of one-and-onehalf (1.5) percent per month or the maximum rate allowed by law on a delinquent account, excepting any portion of the invoiced amount in dispute and resolved in favor of Client. If Client objects to all or any portion of the invoice, Client will notify Herzog in writing within fourteen (14) days of the invoice date, identify the cause of disagreement, and pay when due that portion of the invoice not in dispute. The parties will immediately make every effort to settle the disputed portion of the invoice. All time and expenses incurred (including attorney's fees) in connection with collection of any delinquent amount will be paid by Client to Herzog per Herzog's current fee schedules. In the event Client fails to pay Herzog within sixty (60) days after invoices are rendered, Client agrees that Herzog will have the right to consider the failure to pay Herzog's invoice as a breach of this agreement. At this point a lien will be filed on the property.



We trust this proposal is consistent with your needs at this time. If you have any questions regarding the proposal please do not hesitate to contact us.

Very truly yours,

HERZOG ASSOCIATES, INC. Environmental Services Division

Jun le Street

Lisa A. Havens Staff Geologist

Long Dupung sy cec

Senior Vice President Environmental Services

LAH:GD:ts (7110.14)

cc: Ms. Suzanne Reed (2)

Sonoma County Office of Education

5340 Skylane Boulevard

Santa Rosa, California 95403

AUTHORIZATION

Subject to credit acceptance and receipt of appropriate retainer the undersigned agrees to the terms and conditions of this Proposal:

HERZOG ASSOCIATES	CLIENT
Sany Despeut Sy ise P. M. Signature	Client Signature
Gary Dapag Typed P. M. Name	Typed Client Name
Senier VP, Environmental Services Company Position	
Company Position	Position
February 6, 1992	
Date	Date
Attachment: Schedule of Charges	

#J1215

04/38/98

_VEOSOO _AERZOG HISTORY | S1 CLOVERDALE UNIFIED

VENDOR HISTORY REPORT 01/01/01 TO 04/28/72

PAGE :

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	01-11-71-7100-7100-5890.00-0000	CU-910816	12511		4,034.50	05/02/91	05/09/91	196269
	01-11-71-7100-7100-5800.00-0000	PV-910952	50265		516.07	06/18/91	36/21/91	207760
	01-11-91-7100-7100-5800.00-0000		40253		1,471.57	06/13/91	06/21/91	207760
	01-11-71-7100-7100-5800.00-000	PU-710954	30256		â.797.90	06/18/91	06/21/91	307740
	01-11-71-7100-7100-5500.00-0000	EP-910067		744.26	•	06/30/91	06/30/91	
	01-11-71-7100-7100-5800.00-5000		500066	744.26-	744.26	07/19/91	07/25/91	213205
	01-11-91-7100-7100-5800-00-0000		70313	, (1.44	3,375.50	03/27/91	03/29/91	219068
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	01-11-91-7100-7100-5800.00-0000		11355		2,802.48	01/23/92	01/30/92	2 52 775
	01-11-71-7160-7100-5800.00-0000	PV-920479	1000006HZ		432.00	02/25/92	02/28/92	259571
				0.00 🖈	31,749,12	:		

.



State of California State Water Rescurses Control Board Division of Clean Water Programs Underground Storage Tank Cleanup Fund Program 2014 T Street, Suite 130 Mail: P.O. Box 944212 Sacramento, CA 94244-2120 For State User

Date Received

Priority

RECEIVED

MAY 2 2 1992

Underground Storage Tank Cleanup Fund Request for Further Action

HAZARDOUS BETTER SUS

Instructions: Provide the following information, check the action(s) that you are requesting, attach the appropriate information and return to the UST Cleanup Fund at the above address. (You may request either or both actions)

Claimant Information

Name: Cloverdale Unified School Company: Cloverdale Unified School Di	istrict
Address: 97 School Street, Cloverdale, CA 95425	
Telephone: <u>(707)</u> 894-2548	
(We) hereby declare under penalty of perjury that all facts and statements included with this request true and correct to the best of my (our) knowledge and belief. Signature: Date: 4/28/92	are

Claim Information

Claim No: 1081

Site Washington School, 129 So. Washington Street, Cloverdale, CA 95425

Address: Cloverdale High School, 509 North Cloverdale Blvd., Cloverdale, CA 95425

Action(s) Requested

- () Option 1(a) Request for Final Staff Decision. I (We) hereby request a Final Staff Decision regarding the determination that the above claim application is incomplete or ineligible. This request is made pursuant to Section 2814(a) of the UST Cleanup Fund Regulations. I (We) have attached any additional supporting arguments I (we) have.
- (V) Option 1(b) Request for consideration of additional documents Resubmittal of claim. I (We) hereby submit additional documents and/or amended pages which I (we) believe will complete the above claim application. I (We) understand that the claim will be considered for placement on a future priority list. Please review this material and inform me (us) of your determination.

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DONALD HERZG & ASSŒIATES, INC. GEOTECHNICAL CONSULTANTS

Job No.: 5075.07-03-2

Date: December 26, 1986

Transmitt	_ 1
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To: Cloverdale Unified School	Regarding: SCOE Project
Attention: Mr. Doug Dorman	Tank Removal - Site 2
97 School Street	Cloverdale High School
Cloverdale, CA 95425	509 No. Cloverdale Blvd.
	Cloverdale, California
The Following:	
•	
1) Soil Analysis results and Sam	Cus cour
2) Uniform Hazardous Waste Manife	est (Disposal of Tank)
Transmitted for:	
☐ Your use; please return them when you have fin	ished Your use and need not be returned
Your review: please return them with your comm	ments d other
Remarks:	
Please retain the attached in your	r files for a permanent record
Additional information will be pre	esented in a subsequent report.
If you have any questions, please	call.
	Signed by: Bull us,
cc: Mr. Jerry Wilson Mr. Mark Sullivan	Signed by: Bill C. Wiggins
	Project Manager

Main Office:

275 Miller Ave.
 Mill Valley, CA 94941 (415) 383-7740

☐ 1541 Third St. Napa, CA 94559 (707) 224-5411 ☐ 110 Gough St.
 Suite 403-A
 San Francisco, CA 94102
 (415) 863-0566

290 North Main
 Lakeport, CA 95453
 (707) 279-0736



320 TESCONI CIRCLE, SUITE R • SANTA ROSA, CA 95401 • (707) 544-5570

SAMPLE CHAIN OF CUSTODY / WORK ORDER SCOR CLEVE - FAIL A. TO TO THE Phone City, State, Zip Client's or Representative's Signature _____ (signature authorizes the work and terms listed below) Terms: Payment is due within 30 days of invoice. A service charge of 1.5% will be added to overque accounts. "All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick Ji (الأنابر up samples. PROJECT NAME CLIVE LOALE 11 5H MANIFOS SCHOOL NO. SAMPLERS: (Signature) Will Alman OF REMARKS 00#-TAINERS STATION LOCATION STA NO. DATE TIME MIEST END (MECH) 1/15 CENTER 1 (+15) WMMDate Time Received by: (Signature) DRIVING TIME: Relinquished by: (Signature) START: FINISH SIGHT TIME: Received by: (Signature) Reinquished by: (Signature) emiT COTAL START: FEES: HOUR/MILE. TOTAL TIME: Received by: (Signature) Date | Time Relinquished by: (Signature)

DHS 8022 A (11/84) (EPA 8700-22)

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UNIFORM HAZARDOUS WASTE MANIFEST Generator's US CADOO	EPA ID No. Mai	nifest 2. Pa nent No. at		n in the shaded areas equired by Federal
3. Generator's Name and Mailing Address	CHOOL DIST	\mathcal{K} / \mathcal{L} / \mathcal{F} o	494688	
4. Generator's Phone (707) 994-2343	ID. EL VERD	ACE B.SI	ate Generator's 1	
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MAH SHIP SERVICE	CAD 00000	フハ Ó stata	ansporter's Phone	C67-65 35
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7. Transporter 2 Company Name	Ou E/A (O Nume	F.Tr	insporter's Phone	
9. Designated Facility Name and Site Address 10.	US EPA ID Numb	oer G.St	Recility's ID	1-78
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J. Additional Descriptions for Material Stated: Above:	Man wind are the state of the s	KH	and ling Codes for	Wastes Listed Above
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15. Special Handling Instructions and Additional Information	tion	-		•
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for transport by highway according to applicable interna	ational and national gover	nmental regui	ations.	Date
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19. Discrepancy Indication Space		_		* 12.02.1 * 150.00
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20. Facility Owner or Operator: Certification of receipt of haz	cardous materials covered	by this manife	st except as noted	
Item 19.	Signature			/ Date Month Day /ear
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W. J. HARRIS

TERMS: CASH

DATE August 19, 1986

OUR INVOICE NO. 886-99
OUR JOB NO. 3192
CUSTOMER'S REFERENCES
PO NO. 1588 (B4070)

JOB NO.

Petroleum Engineering 205 - 5th Street Santa Rosa, California 95401

Furnished necessary labor, material and equipment to pick up, clean and dispose of two (2) 1,000 Gals. and one (1) 500 Gals. Tanks as directed. Work started 7/17/86, Cloverdale School, Cloverdale. Work completed 7/30/86, Richmond, California.

Transportation (20 Hours #65.00)

Disposal of Tanks (2-1,000 Gals. #500.00)-5.2

(1-500 Gals. #500.00)-5:27

Muck Out & Disposal of Dirt-5:27

Tolls

TOTAL INVOICE

\$1,300.00

1,000.00

250.00

30.00

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DONALD HERZG & ASSCIATES, INC. GEOTECHNICAL CONSULTANTS

Job No.: 5075.07-05-2

Date: December 26, 1986

Transmittal

To: Cloverdale Unified School	Regarding: SCOE Project
Attention: Mr. Doug Dorman	Tank Removal - Site 27
97 School Street	Washington Elementary Schoo
Cloverdale, CA 95425	129 So. Washington Street
	Cloverdale, California
The Following:	
1) S. I and Masor analysis resul	re and Sample Chair of Gusquiy
2) Uniform Hazardous Waste Manif	est (Disposal of Tank)
	Water the same that the same t
Transmitted for:	
☐ Your use: please return them when you have fir	nished 21 Your use and need not be returned
☐ Your review: please return them with your com	ments Other
Remarks:	
Please retain the attached in you	r files for a permanent record.
Additional information will be tr	ansmitted in a subsequent report.
If you have any questions, please	. call
II you have any questions, prease	Call.
cc: Mr. Jerry Wilson	Signed by: Bee Cuings
cc: Mr. Jerry Wilson Mr. Mark Sullivan	Signed by: Bell C. Wiggins Project Manager

☐ 275 Miller Ave. Mill Valley, CA 94941 (415) 383-7740 ☑ 3000 Cleveland Ave. Santa Rosa, CA 95401 (707) 523-3880 ☐ 1541 Third St. Napa, CA 94559 (707) 224-5411 110 Gough St.
 Suite 403-A
 San Francisco, CA 94102
 (415) 863-0566

290 North Main Lakeport, CA 95453 (707) 279-0736 State of California—Health and Welfare Agency

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Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CLOURDALE TOWN Department of Health Services
Toxic Supstances Control Division
Sacramento, California

Department of Health Services

Manifest | 2. Page 1 | Information in the shaded areas cument No.4 | is not required by Federal 1. Generator's US EPAJD No. Manifest Document No. UNIFORM HAZARDOUS WASTE MANIFEST A.State-Manifests Document, Number 84946999 Generator's Name and Mailing Address 华罗品笔 C LONK CRANK Generator's Phone (7c7) Transporter 1 Company Name US EPA ID Number C.Stater Transporter D.Transporters Plotaine (L) E.States Transporter #10 Transporter 2 Company Name F.Transporters Elion 9. Designated Facility Name and Site Address US EPA ID Number TANK FAZIN 12.Containers 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) Total Type HAZARDOUT LUMETE C. . đ. K.Handling Codes in Wastes Listed Above Additional Descriptions for Materials 15. Special Handling Instructions and Additional Information 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. Date Month Day Year Printed/Typed Name Signature ~ 50 M / 1 / 1 K A / 1 to c / 17. Transporter 1 Acknowledgement of Receipt of Materials Month Day Year Signature Printed/Typed Name KOV 18. Transporter 2 Acknowledgement of Receipt of Materials Month Day Year Signature Printed/Typed Name 19. Discrepancy Indication Space 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. **Date** Month Day Year Signature Printed/Typed Name



320 TESCONI CIRCLE, SUITE R • SANTA ROSA, CA 95401 • (707) 544-5570

SAMPLE CHAIN OF CUSTODY / WORK ORDER

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SAMPLE CHAIN OF CUSTODY / WORK ORDER

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W. J. HARRIS

TERMS: CASH

886-99 OUR INVOICE NO. 3192 OUR JOB NO. CUSTOMER'S REFERENCES 1588 (B4070) PO NO. JOB NO.

Petroleum Engineering 205 - 5th Street Santa Rosa, California 95401

Furnished necessary labor, material and equipment to pick up, clean and dispose of two (2) 1,000 Gals. and one (1) 500 Gals. Tanks as directed. Work started 7/17/86, Cloverdale School, Cloverdale. Work completed 7/30/86, Richmond, California.

Transportation (20 Hours 865.00)	\$1,300.00
Disposal of Tanks (2-1,000 Gals. 9500.00)	1,000.00
(1-500 Gals. 9500.00)	500.00
Muck Out & Disposal of Dirt	250. 00
Tolls	30.00
TOTAL INVOICE	\$3,080.00

220 CHINA BASIN, P.O. BOX 77363 • SAN FRANCISCO, CA 94107 • DAY AND NIGHT: (415) 543-4835



August 19, 1986

OUR INVOICE NO.

886-102

3262 OUR JOB NO. CUSTOMER'S REFERENCES

1838 (B4070)

JOB NO.

CLOUEZBALE - 509 120. CLANGERALE BUID

W. J. HARRIS

Petroleum Engineering

TERMS: CASH

205 - 5th Street Santa Rosa, California 95401

Furnished vacuum truck and operator to pump out oil and water, and dispose of same. Work performed 7/28/86, Cloverdale Unified School

> Vacuum Truck & Operator (8 Hours 865.00) Disposal (500 Gals. 8.30) Tolls

> > TOTAL INVOICE

150.00 12.00

\$520.00

\$682.00

220 CHINA BASIN, P.O. BOX 77363 • SAN FRANCISCO, CA 94107 • DAY AND NIGHT: (415) 543-4835

Sacramento, California Please print or type. (Form designed for use on effic (12-pitch) typewriter.) 1. Generator's US EPA ID No. Manifest CA 0 000 302307 Document No. information in the snaced areas UNIFORM HAZARDOUS is not required by Federal WASTE MANIFEST Generator's Name and Mailing Address SCHOOL DIST GLUVERDALE Transporter 1 Company Name
H - H SUIN SERVICE 16.40 004 77.1168 Transporter 2 Company Name US EPA ID Number GShort Facility Sure and Control Designated Facility Name and Site Address US EPA ID Number -SU CHINA EASIN LAN TRANSISTO EA. 101004771169 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) Total Type Quantity 1:00 % APAC V 0 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described. above by proper shipping name and are classifled, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. Date Month Day Signature 4 Year Printed/Typed Name / 17. Transporter 1 Acknowledgement of Receipt of Materials Date Month Day Signature Printed Typed Name 18. Transporter 2. Acknowledgement of Receipt of Materials Date Month Day Year Printed/Typed Name -Signature 19. Discrepancy Indication Space: 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Oate-Month Day- Year!

Signature.

1 - 1 - 1 -

Printed/Typed Name****

Sacramento, Catifornia Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Generator's US EPAID No. Manifest Information in the shaded areas UNIFORM HAZARDOUS 2. Page 1 Document No is not required by Federal WASTE MANIFEST Generator's Name and Mailing Address Generator's Phone (Transporter 1 Company Name, US EPAJD-Number US EPA ID Number Transporter 2 Company Name des de la compa Designated Facility Name and Site_Address US EPA ID Number 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) Total Type a. E MAZHEDAT WATE A T b. 0 c. 15. Special Handling Instructions and Additional Information 16_GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified; packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. Date Month Day Year Printed/Typed. Name Signature - 101: (1 1 -41/1720 17. Transporter 1 Acknowledgement of Receipt of Materials Date Printed/Typed Name Month Day Signature 18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Month Day Year 19. Discrepancy Indication Space. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Date Printed/Typed Name Signature Month Day Year

W

SCHOOL AND COLLEGE LEGAL SERVICES

Robert J. Henry
General Counsel
Jacqueline M. Gong
Margaret M. Merchat
Susanne K. Reed
Ronald K. Uchiumi
Assistant General Counsels

RECEIVED

DEC 27 1991

HAZARDOUS MATERIALS

Sonoma County Office of Education 5340 Skylane Boulevard Santa Rosa, CA 95403 (707)524-2690 Fax: (707) 578-0517

December 19, 1991

Mark J. Sullivan, R.E.H.S.
Senior Environmental Health Specialist
County of Sonoma
Public Health Department
Environmental Health Services
1030 Center Drive, Suite A
Santa Rosa, CA 95493-2067

Re: Cloverdale High School, 509 N. Cloverdale Blvd.

Dear Mr. Sullivan:

Please accept my apology for not responding to your November 4, 1991 letter prior to your requested date of December 13, 1991. Since our telephone conversation of November 12th, I have met with Dr. Sato, Superintendent of Cloverdale Unified School District and spoken with Lisa Havens, Staff Geologist with Herzog Associates. Ms. Havens is currently in the process of preparing a proposal for the Cloverdale Unified Board that will include a cost estimate for Herzog to prepare the workplan which you requested and will also include an estimate of the cost for completing such a plan.

I informed Ms. Havens that you had suggested that the workplan include the over-excavation of the soil, replacement of the well and the monitoring of the well for two (2) quarters. It was your hope that this would resolve the problem without groundwater treatment.

Even without groundwater treatment, Ms. Havens has indicated that the work included in the workplan could cost a great deal of money (rough estimate: \$200,000.00) to complete. At this time, without outside funding, the District cannot meet such a financial burden without having a significant negative effect on the education of its students.

Once the District has a workplan and an estimate of costs we will begin working with the State on funding sources. Dr. Sato will also apply for funds through the Water Quality Control Board. As discussed, the District may need your assistance in order to qualify for funding.

Letter to Mark J. Sullivan, R.E.H.S. December 19, 1991 Page Two

Please let me know if you have any questions.

Very truly yours,

Susanne K. Reed Assistant General Counsel

SKR:1rt

c: Don Sato, Superintendent, Cloverdale Unified School District Lisa Havens, Herzog Associates

Call Sugame the dimensely.

Discuss the following:

(letter from coming):

(letter from coming):

19 foilure to proceed.

Lempt's you dong.

2004 funding.

Thase in required work.



COUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT

MARK A. KOSTIELNEY
Director of Public Health
GEORGE R. FLORES, M.D.
Health Officer

ENVIRONMENTAL HEALTH SERVICES

1030 CENTER DRIVE, SUITE A

SANTA ROSA

CALIFORNIA 95403-2067

TELEPHONE (707) 525-6565

November 4, 1991

Dr. Donald Sato, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Subject: Remedial Investigation, Cloverdale High School

509 N. Cloverdale Blvd., Cloverdale, CA

Dear Dr. Sato:

This letter acknowledges receipt of the report titled "Final Quarter - Groundwater Monitoring and Sampling Program Results" prepared by Herzog Associates dated October 25, 1991.

Review of the data in the file seems to indicate that the residual contaminated soil left in place appears to be impacting the shallow groundwater in the area of MW-6. The groundwater and soil analysis data generated since October 1989 seems to support this hypothesis.

We have now reached a point where remediation of in situ soil and/or groundwater must occur. Therefore, please direct your consultant to prepare a workplan to perform the necessary soil and/or groundwater remediation at the subject site. Be advised that if MW-6 is compromised during remediation efforts, it will have to be replaced. Without this well close to the contaminated source area, groundwater quality cannot be adequately evaluated to ensure no future impacts.

I would appreciate the submittal of a workplan to perform the necessary remedial activities prior to December 13, 1991.

If questions arise please feel free to call me at 707-525-6570.

Sincerely,

MARK J. SULLIVAN, R.E.H.S.

Senior Environmental Health Specialist

cc: Susan Warner, NCRWQCB

Fred Maurer, Herzog & Associates

File seven 11-1-91 - 24-91 TPH(G) - 490 ppb soil remediation: discussed in report dated 3-25-91 TPHD-1100 APB 5-13-91 MW6 -- TPH/G > 360 ppb IPH(D) - 250 ppb 1-05-91 Goil Long - B-2 TPH/D-32 ppm @ 16 MW6- TPH/G - 610pple TPI+10 - 1000 ppt 1-10-18-89 MW6 H20 TPH/G = 1300 pp6 Endland data - MWb 5.5ft) TPH/G - 1700 ppm TP4/0 > 7400 pps (5.5 ft) TRA/D= 3200 ppm Of Chromodypio

Of Chroming 11 ppm (MCL 05)

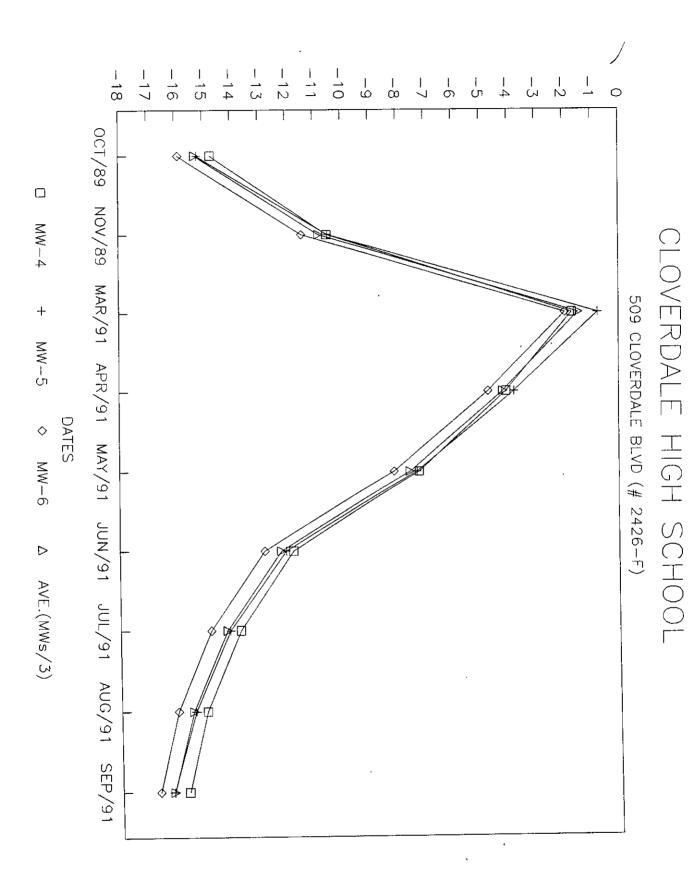
Of Souther sampling not

required by Genero Rondolling

weblish Solubling of P. letter of 6-28-90

asked for research into source of chroming in G.W.

1-23-91-> Metalo resompted -> N.D. in all MW's Tolowing issues med addressing. Soil disposal oftons. Excaration - area of MW 6 proposed is 3-25-91 report - 7 (ofter 4 quarters of sampling) MW 6 would be destroyed) - how will Replacement & MW6 will require a longer screen length so FP combe checked. Dec 90 Join 91 Job 91 Moz 91 Apr 91 May 91 Jun 91 July 10 July 91 Sept 91 14-16' 16-17' 10-11' 1-21 4-61 7-8' 11-13' 13-15" 14-16' 75-171 10.5 10.48 MWS. MW6 100 ET 89 NOV 89 NOV89 14.7 15.19 15.87



Herzog Associates

Geoscientists

1318 Redwood Way, Suite 200 Petaluma, CA 94954 Tel (707) 792-5600 Fax (707) 792-5695

July 16, 1991

Project Number 15198.01-01-7



Dr. Donald Sato, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, California 95425

Groundwater Monitoring and Sampling Results — 509 Cloverdole Elvd., Cloverdale High School Cloverdale

Dear Dr. Sato:

Herzog Associates (Herzog) is pleased to present the results of our quarterly monitoring and sampling program at Cloverdale High School in Cloverdale, California (see Plate 1, Location Map). Included in this report are the results of our March, April and May, 1991, monthly groundwater gradient determinations and our April, 1991 round of quarterly well sampling at the site. Copies of this report are being submitted to the North Coast Regional Water Quality Control Board (Board) and Sonoma County Hazardous Materials Management Program (Hazmat) for their review.

March 1991 Gradient Determination

Groundwater elevations were measured in the three existing monitoring wells at the site on March 27, 1991 (see Plate 2 for Site Plan, Cloverdale High School). The table below lists depths to groundwater, well head elevations and calculated groundwater elevations for the site on that date.

Well	Depth to Water (feet)	Well <u>Elevation*</u>	Groundwater Elevation*
MW-4	1.68'	329.86	328.18
MW-5	0.75'	330.11	329.36
MW-6	1.93'	330.98	329.05

^{*} Elevations relative to Mean Sea Level (MSL) datum.

The relative groundwater flow direction and gradient were determined using the above data, and are presented on the attached Site Plan (Plate 2).

July 16, 1991 Cloverdale High School

Project Number: 15198.01-01-7

April 1991 Groundwater Sampling

On April 23, 1991, the three site groundwater monitoring wells were purged and sampled. Samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline, as diesel, and as motor oil, and benzene, toluene, xylenes and ethylbenzene (BTXE). All sampling and sample handling was performed in accordance with the procedures presented in our November 19, 1990 Work Plan and January 22, 1990 Report. Analytical results and chain-of-custody forms from the April groundwater samples are attached for your review. No petroleum hydrocarbon constituents were detected in samples collected from wells MW-4 and MW-5 at Cloverdale High. Analysis of the sample from MW-6 resulted in detection of very low levels of TPH as gasoline (0.36 parts per million, or ppm) and as diesel (0.25 ppm). No other analytes were detected in the MW-6 well water.

Groundwater elevations in site wells were also measured on April 23, 1991. Results are given below.

Well	Depth to Water (feet)	Well Elevation (MSL)	Groundwater (Elevation (MSL)
MW-4	4.04'	329.86	325.82
MW-5	3.75'	330.11	326.36
MW-6	4.68'	330.98	326.30

The groundwater flow direction and gradient for these data are presented on Plate 2.

May 1991 Gradient Determination

Groundwater elevations were again measured on May 24, 1991 at the subject site. Water elevations are given below.

Well	Depth to Water (feet)	Well Elevation (MSL)	Groundwater (Elevation (MSL)
MW-4	7.18'	329.86	322.68
MW-5	7.27'	330.11	322.84
MW-6	8.09'	330.98	322.89

The groundwater flow direction and gradient for these data are presented on Plate 2.



July 16, 1991 Page 3

Cloverdale High School

Project Number: 15198.01-01-7

We trust this provides the information you require at this time. Should you have any questions regarding these or other matters, please feel free to contact the undersigned at (707) 792-5600.

Yours very truly,

HERZOG ASSOCIATES

Environmental Services Division

Lisa A. Havens Staff Geologist

Frederick Maurer, Jr. Project Manager

LAH:FM:ts (7609.57)

Attachment: Plate 1 - Location Map

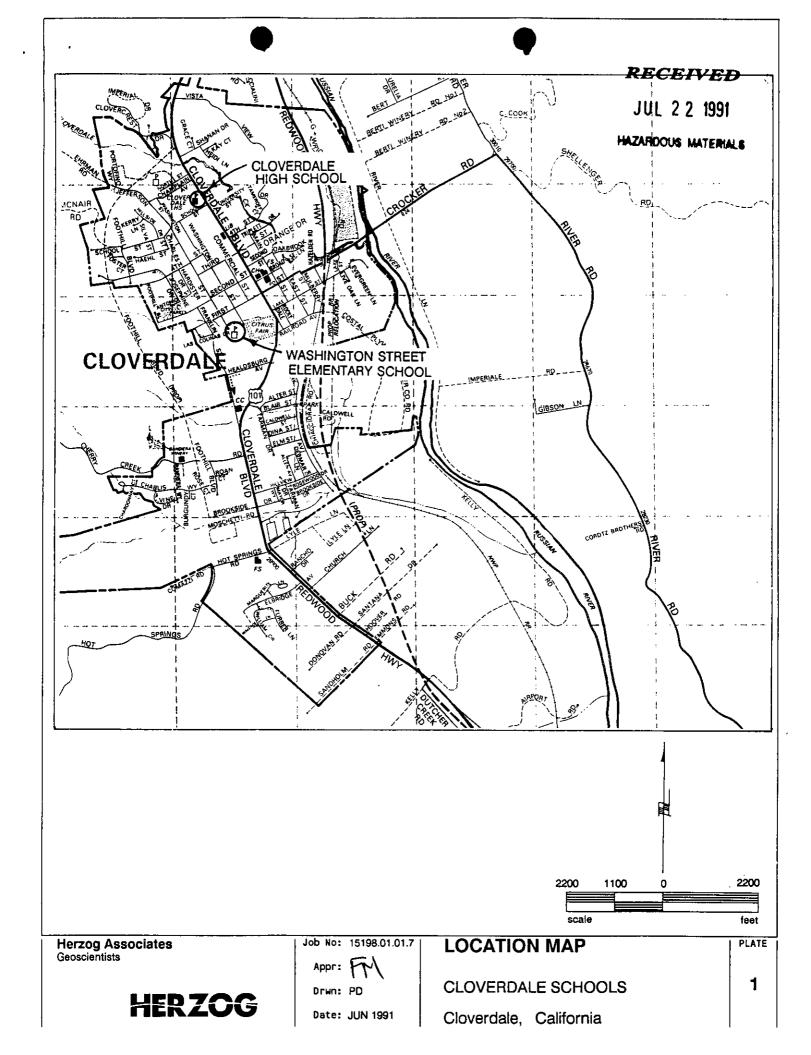
Plate 2 - Site Plan of Cloverdale High School NET Analytical Results and Chain-of-Custody

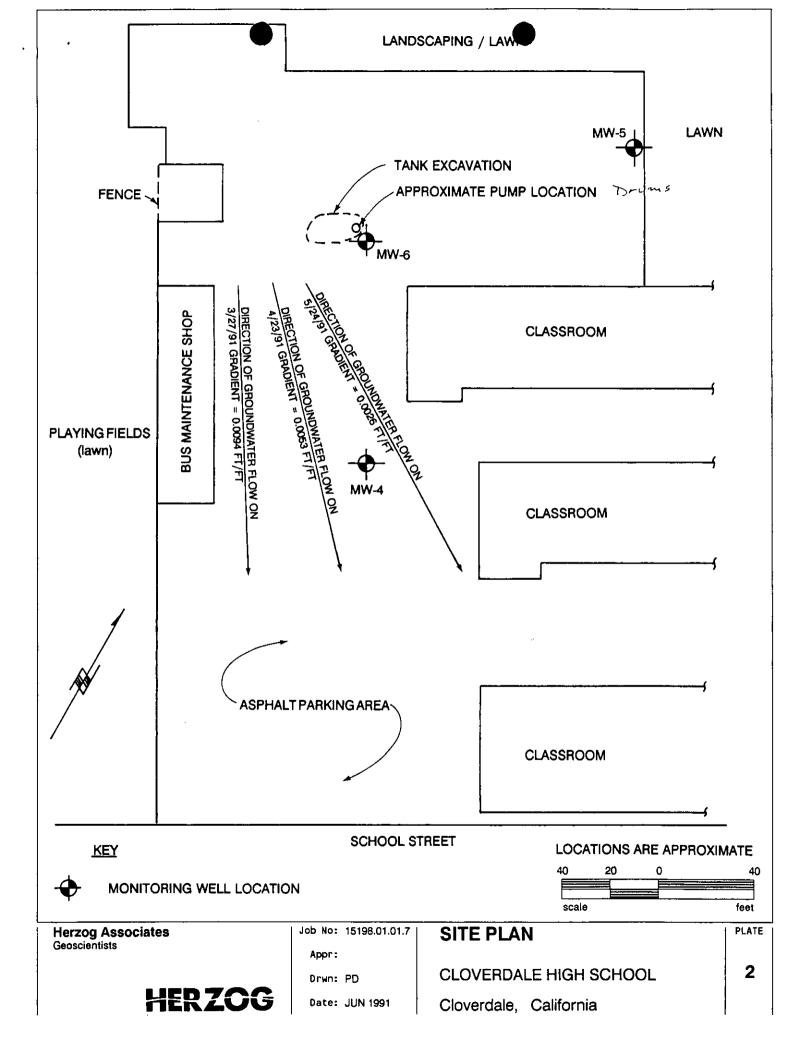
cc: Ms. Susan Warner

North Coast Regional Water Quality Control Board 1440 Guerneville Road Santa Rosa, California 95403

Mr. Mark Sullivan Sonoma County Hazmat 1030 Center Drive, Suite A Santa Rosa, California 95403









NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc. 435 Tesconi Circle Santa Rosa, CA 95401

Tel: (707) 526-7200 Fax: (707) 526-9623

Here to the total of the total

Lisa Havens Herzog Associates 1318 Redwood Way, Ste 200 Petaluma, CA 94954 Date: 05-13-91

NET Client Acct No: 307 NET Pacific Log No: 7130 Received: 04-23-91 1750

Client Reference Information

Cloverdale; Project: 15198.117

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack Laboratory Manager

JS:rct Enclosure(s)



Client Name: Herzog Associates

NET Log No: 7130

Date: 05-13-91

Page: 2

Ref: Cloverdale; Project: 15198.117

Descriptor, Lab No. and Results M₩-1 MW-2 23-91 04-23-91 04 am am Reporting 83233** Units Method Limit 83234** Parameter PETROLEUM HYDROCARBONS VOLATILE (WATER) 1 DILUTION FACTOR * 1 05-02-91 05-01-91 DATE ANALYZED METHOD GC FID/5030 0.05 ΝD as Gasoline ND mg/L METHOD 602 1 DILUTION FACTOR * 1 DATE ANALYZED 05-**02-91** 05 -01-91 0.5 ND ug/L Benzene ND Ethylbenzene 0.5 ND ND ug/L Toluene 0.5 ΝĎ ND ug/L Xylenes, total 0.5 ΝD ND ug/L PETROLEUM HYDROCARBONS --EXTRACTABLE (WATER) 1 DILUTION FACTOR * 04-29-91 Ø4-29-91 DATE EXTRACTED 05-10-91 DATE ANALYZED **05-10-91** METHOD GC FID/3510 0.05 NÓ mg/L as Diesel ΝÞ 0.5 иþ as Motor Oil ND, mg/L

^{**}Samples for extractable hydrocarbons were originally extracted on 04-29-91 and QC failed. Samples were re-extracted on 05-09-91 and analyzed on 05-10-91. Results from re-extraction confirm original results.



Tient No: 307

©Client Name: Herzog Associates

NET Log No: 7130

Date: 05-13-91

Page: 3

Ref: Cloverdale; Project: 15198.117

			escriptor, Lab No. and Results					
Paramatan.	Method	Reporting Limit	MW+3 04-23-91 am 83235**	MW-4 04-23-91 pm 83236**	Units			
Parameter	Method	DIMIC	03233	83236**	Units			
					· · 			
PETROLEUM HYDROCARBONS			 -					
VOLATILE (WATER)			<u> </u>					
DILUTION FACTOR *			4	1				
DATE ANALYZED			0/5-01-91	05-01-91				
METHOD GC FID/5030		0.05	<u> </u>		/*			
as Gasoline		0.05	ΝD	ND	mg/L			
METHOD 602			7,					
DILUTION FACTOR *			1	1				
DATE ANALYZED		0.5	05-01-91	05-01-91	/5			
Benzene		0.5	ND	ND	ug/L			
Ethylbenzene		0.5	ND	ND	ug/L			
Toluene		0.5	ND)	ND	ug/L			
Xylenes, total		0.5	ΝĎ	ND	ug/L			
PETROLEUM HYDROCARBONS			 -					
EXTRACTABLE (WATER)			1_					
DILUTION FACTOR *			1	1				
DATE EXTRACTED			04-29-91	04-29-91				
DATE ANALYZED			05-10-91	05-10-91				
METHOD GC FID/3510		0.05		ND	ma /T			
as Diesel		0.05	(ND	ND	mg/L			
as Motor Oil		0.5	ND	ND	mg/L			

^{**}Samples for extractable hydrocarbons were originally extracted on 04-29-91 and QC failed. Samples were re-extracted on 05-09-91 and analyzed on 05-10-91. Results from re-extraction confirm original results.



[®]Client Name: Herzog Associates

NET Log No: 7130

Page: 4

Ref: Cloverdale; Project: 15198.117

Descriptor, Lab No. and Results

Date: 05-13-91

		_			
			MW-5 04-23-91 pm	MW-6 04-23-91 pm	
Parameter	Method	Reporting Limit	83237**	83238**	Units
Parameter	Method	BIMIL	83237**		OHICS
PETROLEUM HYDROCARBONS					
VOLATILE (WATER)					
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-01- 9 1	05-01-91	
METHOD GC FID/5030				,	
as Gasoline		0.05	ND	0.36 = 360195	mg/L
METHOD 602					
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-01-91	05-01-91	
Benzene		0.5	ND	ND	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	ND	ug/L
Xylenes, total		0.5	ND	ND	ug/L
PETROLEUM HYDROCARBONS					_
EXTRACTABLE (WATER)					
DILUTION FACTOR *			1	1	
DATE EXTRACTED			04-29-91	04-29-91	
DATE ANALYZED			05-10-91	05-10-91	
METHOD GC FID/3510				0.25 = 250 April	,
as Diesel		0.05	ND	0.25=23011	mg/L
as Motor Oil		0.5	ND	ND	mg/L

^{**}Samples for extractable hydrocarbons were originally extracted on 04-29-91 and QC failed. Samples were re-extracted on 05-09-91 and analyzed on 05-10-91. Results from re-extraction confirm original results.



[®]Client Name: Herzog Associates

NET Log No: 7130

Date: 05-13-91

Page: 5

Ref: Cloverdale; Project: 15198.117

Descriptor, Lab No. and Results

field blank 04-23-91

			am	
		Reporting		
Parameter	Method	Limit	83239	Units
PETROLEUM HYDROCARBONS				
VOLATILE (WATER)				
DILUTION FACTOR *			1	
DATE ANALYZED			05-01-91	
METHOD GC FID/5030				
as Gasoline		0.05	ND	mg/L
METHOD 602				
DILUTION FACTOR *		•	1	
DATE ANALYZED			05-01-91	
Benzene		0.5	ND	ug/L
Ethylbenzene	1	0.5	ND	ug/L
Toluene	7	0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L



Client Acct: 307

©Client Name: Herzog Associates

NET Log No: 7130

Date: 05-13-91

Page: 6

Ref: Cloverdale; Project: 15198.117

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	99	ND	72	52	26
Motor Oil	0.5	mg/L	90	ND	N/A	N/A	N/A
Gasoline	0.05	mg/L	88	ND	91	92	1.0
Benzene	0.5	ug/L	87	ND	104	115	10
Toluene	0.5	ug/L	90	ND	103	106	3.1
Gasoline	0.05	mg/L	94	ND	87	100	14
Benzene	0.5	ug/L	86	ND	84	93	5.3
Toluene	0.5	ug/L	91	ND	94	99	5.3

COMMENT: Blank Results were ND on other analytes tested.





KEY TO ABBREVIATIONS and METHOD REFERENCES

JUL 2 2 1991

HAZARDOUS MATERIALS

Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.

: Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram

of sample, wet-weight basis (parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of

sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters

of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable

listed reporting limit.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram

of sample, wet-weight basis (parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of

sample.

umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 16th Edition, APHA, 1985.

Lab Name $\lambda^{\ell} \dot{\epsilon}$

HERZOG ASSOCIATES 1318 Redwood Way, Suite 200 Petaluma, CA 94954 707-792-5600

CHAIN OF CUSTODY RECORD

JE17////////////////////////////////////		LOCATION/ REMARKS			X + 0.1 0.1 + x 0.2 -	· 1 / 1 / 1 / 1 / 2 / 2 / 2 / 2 / 2 / 2 /		Xingle Line		() () () () () () () () () ()	dellas (Aus 10				d by: (Sig) Date/Time Received by: (Sig)	l by: (Sig) Date/Time Received by: (Sig)	Sample Integrity:
	219m	Numb Conta		, \ X	× ×	×	メベ	メ シ	7 5	3 ×					Reliquinshed by: (Sig)	Relinquished by: (Sig)	Date/Time
E Cloverdale	(Printed) Lisa Havers	Final Sample Disposition	Anal. Back Extruded	×						→					Received by: (Sig)	Received by: (Sig)	Received for Lab by: (Sig)
PROJECT NAME		q	Wai IsrD							>					Date/Fime Recei	Date/Time	Date/Time
NUMBER 1	SAMPLER(S);, (Signature)	91	nsCl miT	X 14. 8.1/2	1 1/14	1.41 H	49	19.3	h/J	1 4 July						d By: (Sig)	ed By: (Sig)
PROJECT NUMBER	SAMPLER	\gni # noi th	Bor Stat	1-1111	1445-2	144.3	1.16.4	5-747	9-41/	Id Blook					Relinquished By: (Sig)	Relinquished By: (Sig)	Relinquished By: (Sig)

Field

L.U.S.T.

Field Inspection Report

5/23/9/
Date: 4 /23/91 MTWTFSS Site ID #: Weather: Coudy
Site Name: Clowedale High School
Site Address: 509 Cloverdale, Cloverdale
FIELD ACTIVITY: Time arrived onsite: 1:30pm
Soil Borings Excavation Activities
X- MW: Construction Development Sampling Abandonment GW Levels
Site Consultation
Site Investigation/Survey/Reconnaissance
Other:
NOTES: Sites inspertion to observe sampling - Consultant not on site.
Consultant not on site.
5/23/9/: Site inspection to observe monitoring /sampling
activities - Consultant not on - site. Nolepiston
provided in Haryogo little of 4-30-91
•
4.4//

MARK J. SULLIVAN, R.E.H.S.

Hazardous Materials Specialist

Herzog Associates

Geoscientists

1318 Redwood Way, Suite 200 Petaluma, CA 94954 Tel (707) 792-5600 Fax (707) 792-5695

RECEIVED

мдү + 0 1991

HAZARDOUS MATERIALS

April 30, 1991

Project Number 15198.01-01-7

Dr. Donald Sato, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, California 95425

A member of the HIH group of companies

Underground Tank Investigation RE:

Cloverdale High School

-509 clowedale Blod. So.

Cloverdale, California

Dear Dr. Sato:

The purpose of this letter is to address the April 9, 1991 correspondence from Mr. Mark Sullivan of the Sonoma County Hazardous Materials Management Program (County) regarding our Report of Supplemental Underground Tank Investigations dated March 25, 1991. Each response in this letter is numbered corresponding to the County's original comments.

- Future reports and correspondences relating to the Washington Street Elementary and Cloverdale High School site investigations will be submitted separately.
- The issue of potential metals in site groundwater was previously addressed in our April 9, 1991 quarterly sampling report.
 sampling to be done during first round of sampling - all below MCL.
- We understand that if adequate groundwater data has not been collected at the time of excavation, replacement of well MW-6 may be necessary.
 - Prior written approval of the North Coast Regional Water Quality Control Board will be sought before any soil and/or water wastes are disposed of on site.
- 1 5 Contaminated water wastes generated at the site will be disposed of through the local Sanitation District, if approval from the plant operator can be obtained.

6. Available data from site soil samples suggest that the gasoline and diesel contamination noted in site soil may be homogenized rather than distinct. If, however, the contaminated material is distinct or can be easily separated, the gasoline contaminated fraction would be aerated on-site to less than 50 parts per million and may then be disposed of locally at a Class III landfill.

We trust this provides the information required at this time. Our next monthly water level measurements at the site are tentatively scheduled for May 23, 1991. Our next quarterly sampling report will be submitted shortly thereafter. Should you have any questions, please feel free to call the undersigned at (707) 792-5600.

Very truly yours,

HERZOG ASSOCIATES, INC, Environmental Services Division

Lisa A. Havens Staff Geologist

Frederick Maurer, Jr. Project Manager

LAH:FM:ts (7609.49)

Page 3

April 30, 1991 Cloverdale Schools Project Number 15198.01-01-7

cc: Ms. Susan Warner
North Coast Regional Water Quality Control Board
1440 Guerneville Road
Santa Rosa, California 95403

Mr. Mark Sullivan Sonoma County Hazmat 1030 Center Drive, Suite A Santa Rosa, California 95403

Ms. Constance Stavros Sonoma County Hazmat 1030 Center Drive, Suite A Santa Rosa, California 95403



Herzog Associates

Geoscientists

1318 Redwood Way, Suite 200 Petaluma, CA 94954 Tei (707) 792-5600 Fax (707) 792-5695

April 9, 1991

Project Number 15198.01-01-7

RECEIVED

APR 1 1 1991

HAZARDOUS MATERIALS



A member of the HIH group of companies

Dr. Donald Sato, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, California 95425

RE: Groundwater Monitoring and Sampling Results

Washington Street Elementary School

Cloverdale High School

509 Cloverdole Blvd., cloverdale

Dear Dr. Sato:

Herzog Associates (Herzog) is pleased to present the results of our quarterly monitoring and sampling program at Washington Street Elementary School and Cloverdale High School in Cloverdale, California (see Plate 1, Location Map). Included in this report are the results of our December, 1990, and January and February, 1991, monthly groundwater gradient determinations and our January, 1991 round of quarterly well sampling at the two sites. Copies of this report are being submitted to the North Coast Regional Water Quality Control Board (Board) and Sonoma County Hazardous Materials Management Program (Hazmat) for their review.

December 1990 Gradient Determination

Groundwater elevations were measured in the three existing monitoring wells at each site on December 26, 1990 (see Plates 2 and 3 for Site Plans of Washington Street Elementary School and Cloverdale High School, respectively). The table below lists depths to groundwater, well head elevations and calculated groundwater elevations for the two sites on that date.

Washington Elementary

Well	Depth to Water (feet)	Well <u>Elevation*</u>	Groundwater <u>Elevation*</u>
MW-1	8.22	327.18	318.96
MW-2	7.95	325.14	317.19
MW-3	7.90	325.03	317.13

April 9, 1991 Washington Elementary & Cloverdale High Project Number 15198.01-01-7

Cloverdale High -(12-26-90)

Well	Depth to Water (feet)	Well <u>Elevation*</u>	Groundwater <u>Elevation*</u>
MW-4	14.89	329.86	314.97
MW-5	15.18	330.11	314.93
MW-6	15.91	330.98	315.07

^{*} Elevations relative to Mean Sea Level (MSL) datum.

The relative groundwater flow direction and gradient were determined for these data, and are presented on the attached Site Plans for each school (Plates 2 and 3).

January 1991 Groundwater Sampling

On January 23, 1991, the three site groundwater monitoring wells at each site were purged and sampled, and the samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline, as diesel, and as motor oil, benzene, toluene, xylenes and ethylbenzene (BTXE), and selected dissolved metal constituents (cadmium, chromium, lead and zinc). All sampling and sample handling was performed in accordance with the procedures presented in our November 19, 1990 Work Plan and January 22, 1990 Report. Analytical results and chain-of-custody forms from the January groundwater samples are attached for your review. No petroleum hydrocarbon constituents or dissolved metals tested for were detected in any of the Washington Street Elementary School site wells, nor in samples from MW-4 and MW-5 at Cloverdale High. Analysis of the sample from MW-6 at Cloverdale High resulted in detection of very low levels of TPH as gasoline (0.61 parts per million, or ppm) and as diesel (1.0 ppm). No other analytes were detected in the MW-6 well water.

As stated in Herzog's November 19, 1990 Work Plan, which was reviewed and approved by Hazmat, we proposed to analyze selected dissolved metals for only the first round of sampling unless constituents were detected above the California Department of Health Services Maximum Contaminant Levels (MCLs). Since all metals constituents analyzed for both sites were below analytical method detection limits (and below MCLs), no further metals analyses will be performed for either site on subsequent sampling events.



April 9, 1991 Washington Elementary & Cloverdale High Project Number 15198.01-01-7

Groundwater elevations in site wells were also measured on January 23, 1991. Results are given below.

Washington Elementary			
Well	Depth to Water (feet)	Well Elevation(MSL)	Groundwater Elevation (MSL)
MW-1	8.32	327.18	318.86
MW-2	7.80	325.14	317.34
MW-3	7.74	325.03	317.29

Cloverdale High

Well	Depth to Water (feet)	Well Elevation(MSL)	Groundwater Elevation (MSL)
MW-5	16.10	329.86	313.76
MW-5	16.50	330.11	313.61
MW-6	17.15	330.98	313.83

The groundwater flow direction and gradient for these data are presented on Plates 2 and 3.

February 1991 Gradient Determination

Groundwater elevations were again measured on February 27, 1991 at the subject sites. Water elevations are given below.

Washington Elementary			
	Depth to	Well	Groundwater
Well	Water (feet)	Elevation (MSL)	Elevation (MSL)
MW-1	6.77	327.18	320.41
MW-2	6.34	325.14	318.80
MW-3	6.64	325.03	318.39
	_		



April 9, 1991 Washington Elementary & Cloverdale High Project Number 15198.01-01-7

Cloverdale High

Well	Depth to Water (feet)	Well Elevation (MSL)	Groundwater Elevation (MSL)
MW-4	10.31	329.86	319.55
MW-5	10.35	330.11	319.76
MW-6	11.21	330.98	319.77

The groundwater flow direction and gradient for these data are presented on Plates 2 and 3.

We trust this provides the information you require at this time. Should you have any questions regarding these or other matters, please feel free to contact the undersigned at (707) 792-5600.

Yours very truly,

HERZOG ASSOCIATES

Environmental Services Division

Lisa A. Havens Staff Geologist

Frederick Maurer, Jr.

Project Manager

LAH:FM:ts (7609.34)

Attachment: Plate 1 - Location Map

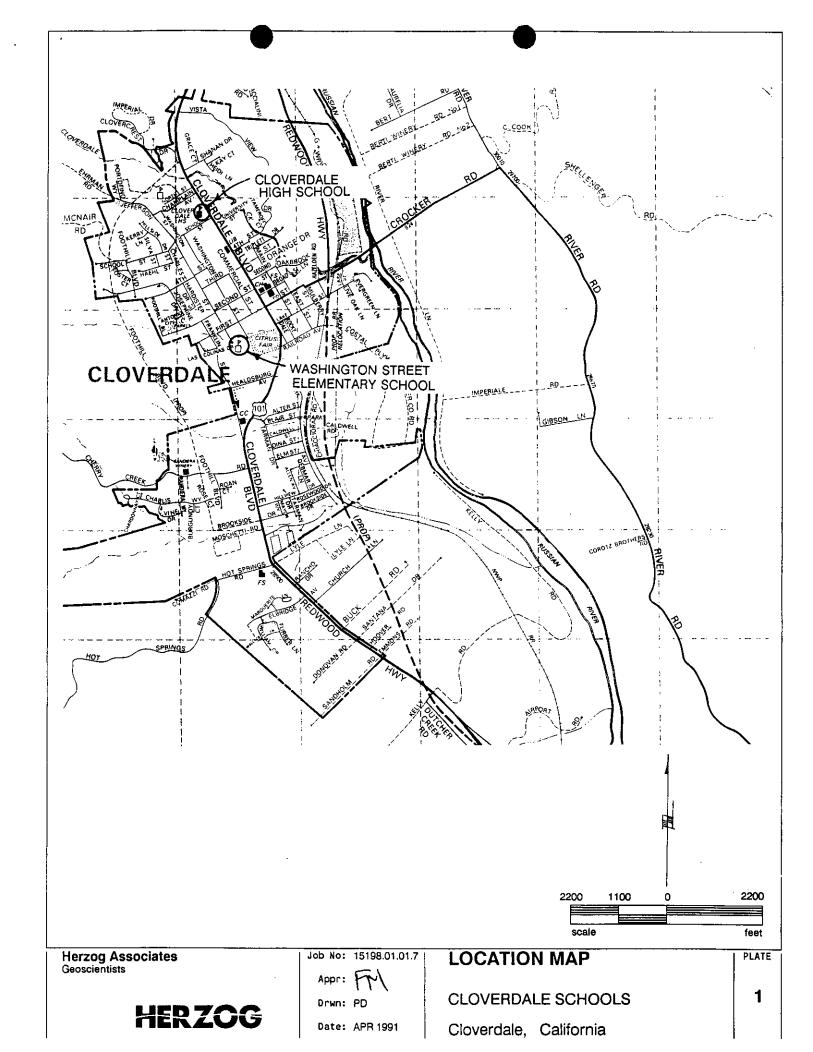
Plate 2 - Site Plan of Washington Street Elementary School

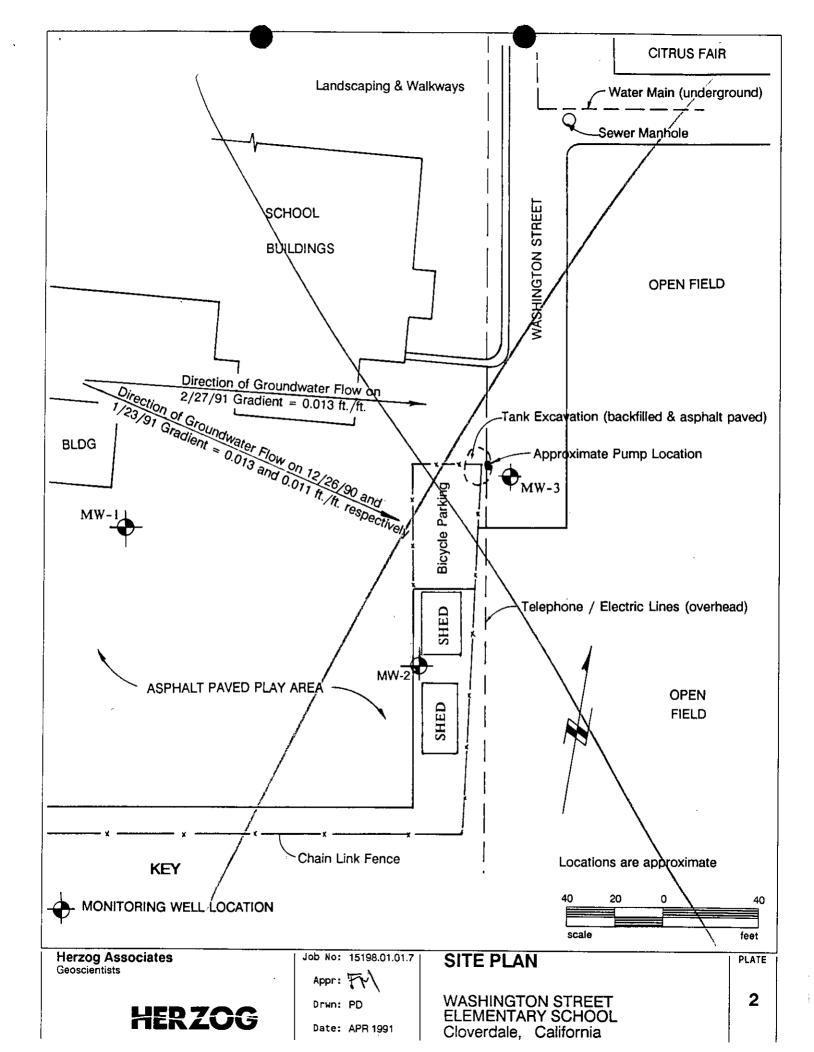
Plate 3 - Site Plan of Cloverdale High School NET Analytical Results and Chain-of-Custody

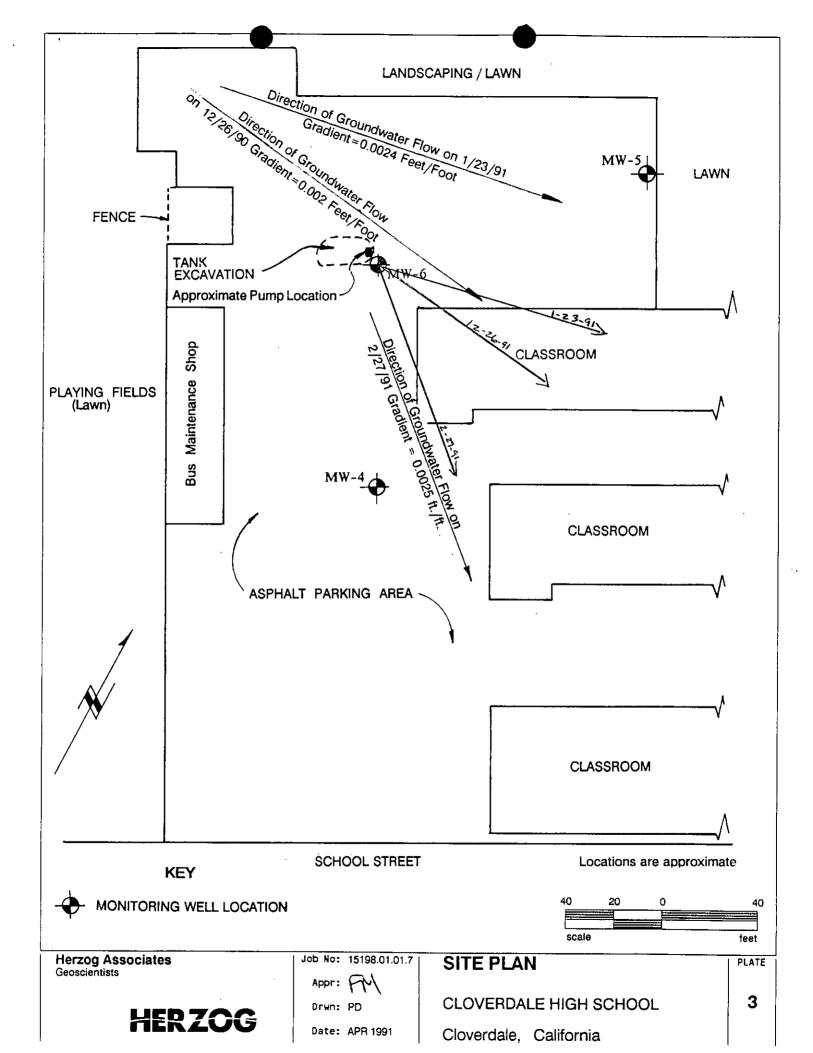
cc: Ms. Susan Warner
North Coast Regional Water Quality Control Board
1440 Guerneville Road
Santa Rosa, California 95403

Mr. Mark Sullivan Sonoma County Hazmat 1030 Center Drive, Suite A Santa Rosa, California 95403

Ms. Constance Stavros Sonoma County Hazmat 1030 Center Drive, Suite A Santa Rosa, California 95403









NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc. 435 Tesconi Circle Santa Rosa, CA 95401

Tel: (707) 526-7200 Fax: (707) 526-9623

Lisa Havens Herzog Associates 1318 Redwood Way, Ste 200 Petaluma, CA 94954 Date: 02-08-91

NET Client Acct No: 307 NET Pacific Log No: 5773 Received: 01-23-91 1645

REVISED 04-03-91

Client Reference Information

Cloverdale; Project: 15198.117

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack Laboratory Manager

JS:rct Enclosure(s)



© Client Name: Herzog Associates NET Log No: 5773

Date: 02-08-91

Page: 2

Ref: Cloverdale; Project: 15198.117

Descriptor, Lab No. and Results

			•		
Parameter	Method	Reporting Limit	MW-1/ 01-23-91 am 73115	MW-2 01-23-91 am 73116	Units
Dissolved Cadmium	6010	0.01	ND	ND	mg/L
Dissolved Chromium	6010	0.01	ND	ND'	mg/L
Dissolved Lead (EPA 7421)	7421	0.02	ND ND	ND/	mg/L
Dissolved Zinc	6010	0.02	מאָ מאָ	ND	mg/L
	5515	0.02	1,2	.,/	9, _
PETROLEUM HYDROCARBONS			\	/	
VOLATILE (WATER)			\	- <i>-</i> /-	
DILUTION FACTOR *			1	1	
DATE ANALYZED			02-04-91	/02-05-91	
METHOD GC FID/5030	\		/	/	
as Gasoline		0.05	ND /	/ ND	mg/L
METHOD 602			/	/ 	3.
DILUTION FACTOR *			1/	1	
DATE ANALYZED			02-04-91	02-05-91	
Benzene		0.5	βÍD	ND	ug/L
Ethylbenzene	\	0.5	/ND	\ ND	ug/L
Toluene	·	₹ 0.5	/ND	ND	ug/L
Xylenes, total		\Q. 5	ND	√ND	ug/L
PETROLEUM HYDROCARBONS			1		
				\	
EXTRACTABLE (WATER) DILUTION FACTOR *				1	
DATE EXTRACTED			01-27-91	01-27-91	
DATE ANALYZED		\	01-27-91	01727-91	
METHOD GC FID/3510		·	01-20-91		
as Diesel		0.05	йБ		mg/L
as Motor Oil		0.5	ND	סאָ לא	mg/L
40 10001 OTT		3.3		470	g / L



Client Name: Herzog Associates NET Log No: 5773

02-08-91 Date:

3 Page:

Ref: Cloverdale; Project: 15198.117

Descriptor, Lab No. and Results

Parameter	Method	Reporting Limit	MW-3 01-23-91 am 73117	MW-4 01-23-91 pm 73118 40	∂\ Units
					
Dissolved Cadmium	6010	0.01	ND /	ND	mg/L
Dissolved Chromium	6010	0.02	ир	ND	mg/L
Dissolved Lead (EPA 7421)		0.002	מאק	ND	mg/L
Dissolved Zinc	6010	0.02	ND	ND	mg/L
PETROLEUM HYDROCARBONS			(
OLATILE (WATER)			\		
DILUTION FACTOR *			λ	1	
DATE ANALYZED			02-05-91	02-05-91	
METHOD GC FID/5030)		
as Gasoline		0.05	ทย/	ND	mg/L
METHOD 602			7_		9/
DILUTION FACTOR *			/1	1	
DATE ANALYZED		,	02-05-91	02-05-91	
Benzene		0.5	ND	ND	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	ND	ug/L ug/L
Xylenes, total		0.5	ND	ND ND	
•		0.5	IAD	ND	ug/L
PETROLEUM HYDROCARBONS					
EXTRACTABLE (WATER)			/		
DILUTION FACTOR *			1/	1	
DATE EXTRACTED			Ø1-27-91	01-27-91	
DATE ANALYZED			01-28-91	01-28-91	
METHOD GC FID/3510					
		0.05		M	
as Diesel		0.05	ND /	ND	mg/L



® Client Name: Herzog Associates

NET Log No: 5773

Date: 02-08-91

Page: 4

Ref: Cloverdale; Project: 15198.117

Descriptor, Lab No. and Results

			MW-5 01-23-91	MW-6 01-23-91	
			pm A . M	pm	
		Reporting	L 149 1	_	
Parameter	Method	Limit	73119 ₅₀	73120	Units
Dissolved Cadmium	6010	0.01	ND	ND	mg/L
Dissolved Chromium	6010	0.02	ND	/ ND)	mg/L
Dissolved Lead (EPA 7421)	7421	0.002	ND	/ ND /	mg/L
Dissolved Zinc	6010	0.02	ND	ND	mg/L
PETROLEUM HYDROCARBONS					
VOLATILE (WATER)					
DILUTION FACTOR *			1	1	
DATE ANALYZED			02-05-91	02-05-91	
METHOD GC FID/5030				anh	
as Gasoline		0.05	ND	0.61 610 ppb	mg/L p/~
METHOD 602					,
DILUTION FACTOR *			1	1	
DATE ANALYZED			02-05-91	02-05-91	
Benzene		0.5	ND	ND	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	ND	ug/L
Xylenes, total		0.5	ND	ND	ug/L
PETROLEUM HYDROCARBONS					
EXTRACTABLE (WATER)					
DILUTION FACTOR *			1	1	
DATE EXTRACTED			01-27-91	01-27-91	
DATE ANALYZED			01-28- 9 1	01-28 - 91	
METHOD GC FID/3510		0.05		10000000	<i>,_</i>
as Diesel		0.05	ND		mg/L pp
as Motor Oil		0.5	ND	ND	mg/L



Client Name: Herzog Associates

NET Log No: 5773

Date: 02-08-91

Page: 5

Ref: Cloverdale; Project: 15198.117

Descriptor, Lab No. and Results

field blank 01-23-91

am

Parameter	Method	Reporting Limit	73121	Units
PETROLEUM HYDROCARBONS				
VOLATILE (WATER)				
DILUTION FACTOR *			1	
DATE ANALYZED			02-04-91	
METHOD GC FID/5030				
as Gasoline		0.05	ND	mg/L
METHOD 602				3,
DILUTION FACTOR *			1	
DATE ANALYZED			02-04-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L



Client Acct: 307

Client Name: Herzog Associates

NET Log No: 5773

Date: 02-06-91

Page: 6

Ref: Cloverdale; Project: 15198.117

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Cadmium Chromium Lead Zinc	0.01 0.02 0.002 0.02	mg/L mg/L mg/L mg/L	105 100 97 100	ND ND ND ND	100 96 88 96	102 95 90 95	1.5 1.0 1.7
Diesel Motor Oil Gasoline Benzene Toluene	0.05 0.5 0.05 0.5	mg/L mg/L mg/L ug/L ug/L	99 101 98 86 90	ND ND ND ND ND	72 N/A 100 103 106	74 N/A 90 86 96	1.8 N/A 10 18

COMMENT: Blank Results were ND on other analytes tested.



KEY TO ABBREVIATIONS and METHOD REFERENCES

 Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.

: Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram

of sample, wet-weight basis (parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of

sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters

of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable

listed reporting limit.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram

of sample, wet-weight basis (parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of

sample.

umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 16th Edition, APHA, 1985.

Lab Name \mathcal{NET}

HERZOG ASSOCIATES 1318 Redwood Way, Suite 200 Petaluma, CA 94954 707-792-5600

CHAIN OF CUSTODY RECORD

Blank outs ! + Tread LOCATION/ REMARKS Y 2.7 よないと 1+61 3 intrus arrachis teis Leti, U. Received by: (Sig) Received by: (Sig) 1.5 t Date/Time Date/Time Sample Integrity: Reliquinshed by: (Sig) Relinquished by: (Sig) Date/Time 1/967/1 Containers 3 Number of Extruded Final Sample Received for Lab by: (Sig) Disposition Haveis to Site Anal. Back Cleverilela Received by: (Sig) Received by: (Sig) Lab X159 Ź (Printed) 1234,5= KSI. λiΑ PROJECT NAME Lnpc Date/Time Date/Time Date/Time Grab Water All 6: 20 SAMPLER(S): (Signature) : ~!: Y23 12.1. 125 Am دېر نځ эшіТ Relinquished By: (Sig) PROJECT NUMBER Relinquished By: (Sig) Relinquished By: (Sig) 123 123 Date **Depth** Mw.3 410.15 17-0012 Station # -3/2 h-min Field Blank Boring/



COUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT

MARK A. KOSTIELNEY
Director of Public Health
GEORGE R. FLORES, M.D.
Health Officer

ENVIRONMENTAL HEALTH SERVICES

1030 CENTER DRIVE, SUITE A

SANTA ROSA

CALIFORNIA 95403-2067

TELEPHONE (707) 525-6565

April 9, 1991

See response dated 4-30-91

Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Attention: Dr. Donald Sato, Superintendent

Subject: Remedial Investigation at Cloverdale High School, 509 Cloverdale Blvd., Cloverdale, CA

Dear Dr. Sato:

This letter acknowledges receipt of the "Report of Supplemental Underground Tank Investigation" prepared by Herzog and Associates dated March 25, 1991. I generally concur with the proposed scope of work proposed by your consultant. The following requests and comments are provided for clarification and your edification.

- 1. It is becoming increasingly more difficult to review the submitted reports in there present format. Connie Stavros and I would very much appreciate the reports for Washington Street School and the Cloverdale High School be submitted as separate reports.
- ✓ 2. The issue of the Chromium detected in the groundwater needs to be further addressed by your consultant. Is remediation of this constituent being considered at this time? Has any new information been generated to explain its presence at the site?
- When considering further excavation in the area of MW-6, you must be aware that at least one full hydrological cycle of monthly monitoring and quarterly sampling must have been completed with non-detectable results documented. If adequate groundwater data has not been collected at the time of excavation and MW-6 is abandoned or its integrity compromised, replacement of the well would then be required.
- On-site disposal of non-detectable drill cuttings, auger rinsate and purge water requires the prior written approval of the North Coast Regional Water Quality Control Board. Contact either Susan Warner or Jan Goebel at 707-576-2220.
- J 5. I would encourage disposal of the accumulated contaminated water stockpiled on site at the local POTW. Appropriate approval must be obtained from the local Sanitation District plant operator.

6. Your consultant may want to consider aeration of the gasoline contaminated soils on-site to a level of less than 50 ppm (if not mixed with diesel contaminated soils). Disposal can then be made at the local Class III disposal site in Cotati. If this avenue is pursued I would suggest your consultant confirm this policy with the disposal site directly as policies can frequently change without notice.

Please respond where appropriate to the above issues prior to May 3, 1991. Include in your response a timeframe for implementation of field activities. If questions arise please feel free to contact me at 707-525-6570.

Sincerely,

Mark J. Sullivan, R.E.H.S.

Senior Environmental Health Specialist

MJS/rc

cc: Susan Warner, NCRWQCB

Fred Maurer, Herzog & Associates, Petaluma, CA

Jim Minor, Cloverdale Fire Dept.

Connie Stavros

FACT SHEET FOR SITE DOCUMENT FILED ELSEWHERE (INCLUDES ROLLED MAPS)

DOCUMENT: Report of Supplemental Underground
Tank Investigations: Cloverdale schools.
SITE NUMBER: # 2426
site address: 509 Cloverdale N.
DATE DOCUMENT RECEIVED: 3/210/91
LOCATION OF DOCUMENT IF NOT IN ACCORDION FOLDER:

PHONED CALL RETURNED WANTSTO WILL CALL WAS IN URGENT DATE TIME AM 3/22 TIME AM AM AREA CODE NO. 792-5600 EXT. 653 FROM 9 Cloverdale High report SE A De Mailed Monday 3/25 Call Only if questions SIGNED Off
--



COUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT

MARK A. KOSTIELNEY
Director of Public Health
GEORGE R. FLORES, M.D.
Health Officer

ENVIRONMENTAL HEALTH SERVICES

1030 CENTER DRIVE, SUITE A

SANTA ROSA

CALIFORNIA 95403-2067

TELEPHONE (707) 525-6565

February 26, 1991

Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Attention:

Dr. Donald Sato, Superintendent

Subject: Underground Fuel Tank Investigation at Cloverdale High

School, 509 N. Cloverdale Blvd., Cloverdale, CA

Dear Dr. Sato:

This letter is in inquiry as to the status of submitting the summary report for field activities which were completed January 2, 1991.

I would appreciate submittal of the above report with recommendations for further work prior to March 15, 1991. In addition, please confirm that all stockpiled soils have been properly covered and secured.

If further clarification is needed, please call me at 707-525-6570.

Sincerely,

MARK J. SULLIVAN, R.E.H.S.

Senior Environmental Health Specialist

MJS/ajh

cc: Susan Warner, North Coast Regional Water Quality Control

Board

Marc Seeley, Herzog and Assoc., 1318 Redwood Way #200,

Petaluma, CA 94954

Jim Minor, Cloverdale Fire Dept.

509CLOVE

DATE 1 1 - 2 - 91

L.U.S.T. Field Inspection Report

Site ID#	F 24 2 6
Site Nam	e Cloverdale High School
Site Add	ress 509 Cloverdale, Cloverdale
Field Ac	<u>stivity</u>
英	Soil Borings
	Monitoring Well Construction
	Monitoring Well Development
	Monitoring Well Sampling
	Monitoring Well Abandonment - Effective 1-2-91: Fred Maurer
	Monitoring Well Abandonment - Effective 1-2-91: Fred Maurer Consultation is Project Manager
	Survey/Site Investigation - Herzog (Yisi, Fred) - Weeks Drilling
	Other
No not Soi	odor or droins signs of contammation
(Rev. 1	





COUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT

MARK A. KOSTIELNEY
Director of Public Health
GEORGE R. FLORES, M.D.
Health Officer

ENVIRONMENTAL HEALTH SERVICES

1030 CENTER DRIVE, SUITE A

SANTA ROSA

CALIFORNIA 95403-2067

TELEPHONE (707) 525-6565

December 10, 1990

Dr. Donald Sato, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Subject: Underground Fuel Tank Investigation at Cloverdale High School, 509 N. Cloverdale

Blvd., Cloverdale, CA

Dear Dr. Sato:

I am in receipt of the workplan for supplemental investigation along with a monitoring well application to drill five soil borings, submitted by Herzog and Associates. I concur with the proposed scope of work and would encourage you to authorize its implementation.

Enclosed please find a copy of the approved drilling permit for your records. In addition, remind your consultant to provide 48 hours notice prior to the commencement of field activities.

If questions arise, please feel free to contact me at (707) 525-6570.

Sincerely,

MARK J. SULLIVAN, R.E.H.S.

Senior Hazardous Materials Specialist

MJS/II

Enclosure: LUST Monitoring Well Application

cc: Jan Goebel, NCRWQCB

Marc Seeley, Div. Mgr., Herzog & Assoc., 1318 Redwood Way, #200, Petaluma, 94954

509cloverdale

Herzog Associates
Geoscientists

1318 Redwood Way, Suite 200 Petaluma, CA 94954 Tel (707) 792-5600 Fax (707) 792-5695

November 19, 1990 Project Number 15198.01-01-7 RECEIVED

NOV 27 1900

HAZARDOUS MAHERZOG

A riember of the HIH) group of companies.

Dr. Donald Sato, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, California 95425

RE: Work Plan
Supplemental Investigation
Cloverdale Schools
Cloverdale, California

Dear Dr. Sato:

In accordance with your request, Herzog Associates, Inc. (Herzog) is pleased to submit this Work Plan for Supplemental Investigations at Washington Street Elementary School and Cloverdale High School in Cloverdale, California (see Plate 1, Location Map for site locations). Based upon our discussions with you and with Ms. Geneva Randall, formerly of the Sonoma County Environmental Health Department (County), it is our understanding that you desire Herzog to implement supplemental investigative services regarding the former underground tank sites referenced above. The supplemental work was indicated and recommended as a result of our initial phase of investigation, the results of which were submitted in our report dated January 22, 1990.

The County is requiring additional investigation of potential soil and/or groundwater contamination at the two sites. The following is a proposal for implementation of a monitoring and sampling program for both sites as well as the drilling and sampling of six additional borings. The work described herein was discussed at our July 17, 1990 meeting with you, Ms. Randall of the County, and Ms. Susan Reed, attorney with Sonoma County Office of Education.

Background

Herzog Associates previously drilled, installed and sampled 6 groundwater monitoring wells at Washington Street Elementary School and Cloverdale High School (3 at each site). The purpose of that work was to evaluate the potential for subsurface

soil and/or groundwater contamination to have resulted from possible leakage of underground fuel storage tanks formerly located at each of the two sites. The results indicated the following:

Washington Elementary - Total petroleum hydrocarbons (TPH) as motor oil was detected at 38 parts per million (ppm) in the soil sample from boring/well MW-2 at 10.0 feet. The groundwater sample from that well detected 0.02 ppm of cadmium, which exceeds the California Department of Health Services (DHS) Maximum Contaminant Level (MCL) of 0.01 ppm for cadmium in drinking water. No other petroleum analytes were detected in soil or water samples collected from this site. Apparent background levels of selected metals tested for were detected in the soil samples from this site.

Cloverdale High: TPH as gasoline at 1,700 ppm and TPH as diesel at 3,200 ppm were detected in the soil sample from boring/well MW-6 at 5.5 feet. The groundwater sample from that well detected 1.3 ppm of gasoline and 7.4 ppm of diesel, as well as 0.11 ppm of chromium which exceeds the DHS MCL of 0.05 ppm for chromium in drinking water. Apparent background levels of selected metals were also detected at this site.

Soils Pile - Two soil samples collected from the excavation spoils pile (generated during excavation and removal of the underground tanks at the two sites) were composited and analyzed. Results indicated TPH concentration as high as 150 ppm of motor oil. This material, as well as that generated during drilling operations at the two sites, will need to be evaluated for disposal options and eventually should be disposed of at an appropriate facility.

Scope of Work

Herzog will perform supplemental investigations of the two sites to evaluate the existence and/or extent of compounds detected in soils and groundwater. The scope of our services will include a limited review of respective site data, and subsurface soil sampling associated with the drilling of six additional borings. A groundwater monitoring and sampling program will also be implemented at both sites.

As discussed with Ms. Geneva Randall, formerly of the County, Herzog proposes the following scope of services:

Washington Elementary

- o Drill and sample one exploratory boring within 5 feet of MW-2-for purposes of verifying the 38 ppm of motor oil previously detected;
- o Implement a groundwater monitoring and sampling program.

Cloverdale High

- o Drill and sample approximately five exploratory borings in the vicinity of MW-6 and the former tank location to evaluate the lateral extent of hydrocarbon compounds in the soil;
- o Implement a groundwater monitoring and sampling program.

Soils Pile and Drill Cuttings

o Evaluate the options for the most cost-effective disposal of the excavation and drilling spoils.

The above scope of services entails the following 6 tasks:

- √Task 1 Background Review and Preparation of a Work Plan
- ✓ Task 2 Drilling Permits and Health and Safety Plan
 - Task 3 Drilling, Sampling, and Analyses Program
 - Task 4 Evaluation of Disposal Options
 - Task 5 Report Preparation

November 19, 1990 Cloverdale Schools Project Number 15198.01-01-7

Task 6 - Groundwater Monitoring and Sampling Program

A description of each task is presented below.

Task 1 - Background Review and Preparation of Work Plan

The work performed for this task is presented herein. This Work Plan is designed to address the County's concerns and request for additional work at the two sites. The scope of services is that which was discussed at the July 17, 1990 meeting between Herzog, Dr. Sato of Cloverdale Unified School District, Ms. Susan Reed of the Sonoma County Office of Education, and Ms. Geneva Randall of the County.

Task 2 - Drilling Permits and Health and Safety Plan

Drilling permits will be obtained through the County prior to drilling operations. In addition we will contact the school's facility manager to locate known underground utilities prior to drilling. We will also coordinate the drilling schedule with the principals at each school, and will attempt to schedule drilling when school is not in session, if possible.

A Health and Safety Plan for field operations has also been prepared as part of this task, as required by 29 Code of Federal Regulations (CFR) part 1910.120 (Federal OSHA). The Health and Safety Plan is being submitted to the County along with their copy of this document and the drilling permit application.

Task 3 - Drilling, Sampling and Analyses

The objective of this task would be to qualitatively assess the characteristics of subsurface soils at the two sites. Field activities will entail the following:

WASHINGTON ELEMENTARY

Soil Sampling - Soil samples will be collected from one boring drilled with a truck-mounted hollow stem auger drill rig. The boring will be located within 5 feet of

HERZOG

the existing boring/monitoring well MW-2 as shown on Plate 2, Washington Elementary Site Plan. The purpose of this boring is to verify the presence of 38 ppm of TPH as motor oil in MW-2 detected at a depth of 10.0 feet during the Phase I investigation at the site.

Our geologist will log the materials encountered in the boring (B-1) and obtain samples for chemical analysis. Soil samples will be taken from the boring at depths of approximately 5 and 10 feet below ground surface. The boring will be terminated after collection of the 10 foot sample and will be backfilled with cement bentonite/slurry. The boring will be drilled with a hollow stem auger and samples obtained by driving a Modified California Sampler (or equivalent) with stainless steel or brass liners in advance of the borehole. Samples collected from B-1 at 5 and 10 feet will be analyzed for TPH as motor oil to confirm or deny the 38 ppm originally detected. The samples will also be analyzed for benzene, toluene, xylenes and ethylbenzene (BTXE), which are petroleum constituents.

CLOVERDALE HIGH

Soil Sampling - Soil samples will be collected from approximately five borings drilled with a truck-mounted hollow stem auger drill rig. The proposed boring locations are shown on Plate 3, Cloverdale High Site Plan. The purpose of these borings is to attempt to determine the extent of soil contamination previously detected in MW-6.

Our geologist will log the materials encountered in the borings and obtain samples for chemical analysis. Soil samples will be taken from the borings at approximately 5-foot intervals, at lithologic changes, at any areas of obvious contamination, and at the soil/groundwater interface. The borings will be drilled with a hollow stem auger and samples obtained by driving a Modified California Sampler (or equivalent) with stainless steel or brass liners in advance of the borehole. Two soil samples from each boring will be analyzed for TPH as gasoline, as diesel and as motor oil, total lead and BTXE. The borings will be backfilled with cement/bentonite slurry upon completion.

BOTH SITES

Sample Handling - Stainless steel or brass tubes ("liners") will be sealed with teflon tape or aluminum foil, capped, taped, labeled, and packed in ice for transport under chain-of-custody procedures to Herzog's laboratory in Santa Rosa, California.

Decontamination - Drilling and sampling equipment will be decontaminated prior to use, between borings, and between sample drives to minimize the potential for cross contamination. The drilling augers will be cleaned before use and before leaving the site. Clean augers will be used for each boring. The sampling equipment will be precleaned prior to obtaining each sample with a trisodium phosphate solution, a potable water rinse, and a distilled water rinse. Additional cleaning or rinsing procedures may be used as deemed necessary.

Soil and Water Waste - Waste soils produced from drilling and sampling activities will temporarily be placed in covered 55-gallon drums and stored on site pending results of chemical analyses. Water from equipment and auger decontamination, as well as purged well water, will also be stored in covered drums at the site.

It is assumed that there will be ready access to the sites and we will coordinate our field schedules with the schools' principals. Possible delays or modifications to the Work Plan due to County review and approval, permitting delays, subcontractor availability, access difficulties or adverse weather conditions are not known or anticipated at this time.

Task 4 - Evaluation of Disposal Options

Herzog will evaluate the options available for the most cost-effective disposal of the excavation and drilling spoils generated at the two sites. This would include options for drill cuttings generated during the field activities proposed in this document.

This task would include the following:

o A review of the constituents previously detected in the spoils material, and the concentration levels of those constituents;

- o A review of the regulatory requirements for disposal;
- o Discussions of disposal options and costs with approximately 3 remedial contractors.

We will then evaluate these options and present the information obtained along with our recommendations in our report (Task 5).

Task 5 - Report Preparation

Herzog will review the results of Tasks 1, 2, 3 and 4 and assess whether or not site contamination was discovered during the investigation. The scope of work does not include determining the complete extent of, nor the environmental or public health impact of, known or suspected contamination. The information collected, analytical results, and Herzog's conclusions and recommendations will be summarized in a report to the Client.

Task 6 - Groundwater Monitoring and Sampling Program

The purpose of this task is to implement a monitoring and sampling program at the two sites to obtain groundwater information for one complete hydrologic cycle. The work will consist of purging all six wells at the two sites and sampling the groundwater from each well every three months for three additional rounds of sampling. The well water will be analyzed for TPH as gasoline, as diesel, and as motor oil, BTXE, and selected heavy metals. For quality assurance purposes a field blank will also be collected for each round of sampling, and will be analyzed for TPH as gasoline and BTXE if analytes are detected in the groundwater samples. During the initial round of groundwater sampling for the two sites in October of 1989, groundwater samples collected for metals analyses were not filtered prior to preservation (acidification). Thus the samples were analyzed for total metals rather than soluble metals. As discussed with Ms. Randall, if it can be established that none of the selected heavy metals exist in soluble form above MCL in the well water at either site after one round of sampling, then no further metals analyses will be required on the well water.

Also, the depth to groundwater in all six wells will be measured to the nearest 0.01 foot in each well on a monthly basis. This data, combined with the well head elevations, will allow groundwater flow direction and gradient to be determined for each site. This information, along with chemical analytical results, will be summarized quarterly in a letter report which will be submitted to you, as well as the County and North Coast Regional Water Quality Control Board (Board) for their review.

We trust this Work Plan is consistent with your needs. Copies of this Work Plan are being submitted to the County and Board for their review and approval prior to implementation of the work. If you should have any questions, please feel free to call either of the undersigned at (707) 792-5600.

Very truly yours,

HERZOG ASSOCIATES, INC.

His a. Havens

Lisa A. Havens Staff Geologist

Marc W. Seeley Division Manager

LAH:MWS:pst (7207.84)

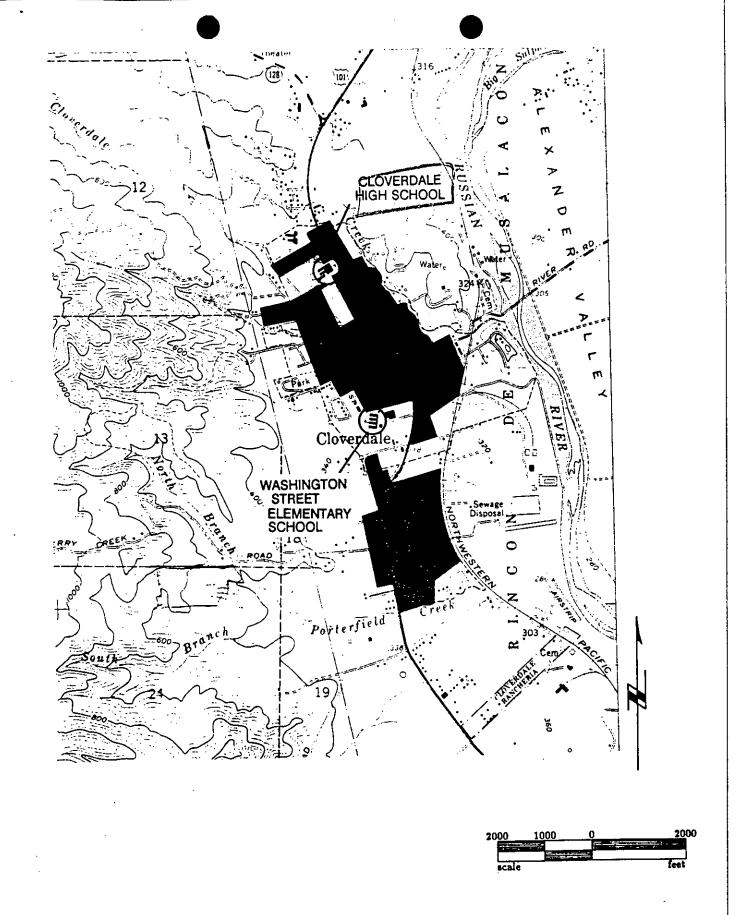
Attachments:

Plate 1 - Location Map

Plate 2 - Washington Elementary Site Plan Plate 3 - Cloverdale High Site Plan

cc: Mr. Mark Sullivan
Sonoma County Hazardous Materials Management Program
1030 Center Drive, Suite A
Santa Rosa, California 95403

Ms. Susan Warner
North Coast Regional Water Quality Control Board
1440 Guerneville Road
Santa Rosa, California 95403



Herzog Associates Geoscientists

HERZOG

Job No: 15198.01.01.7

Appr:iW7

Drwn: AHB

Date: NOV 1990

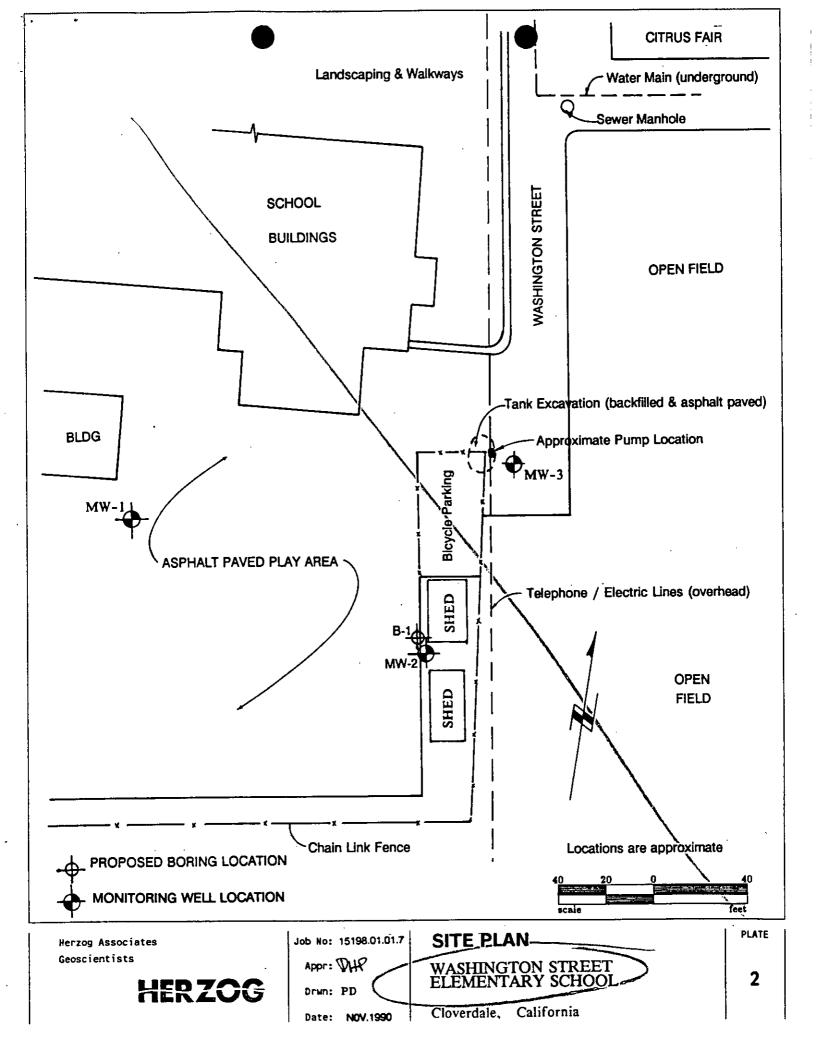
LOCATION MAP

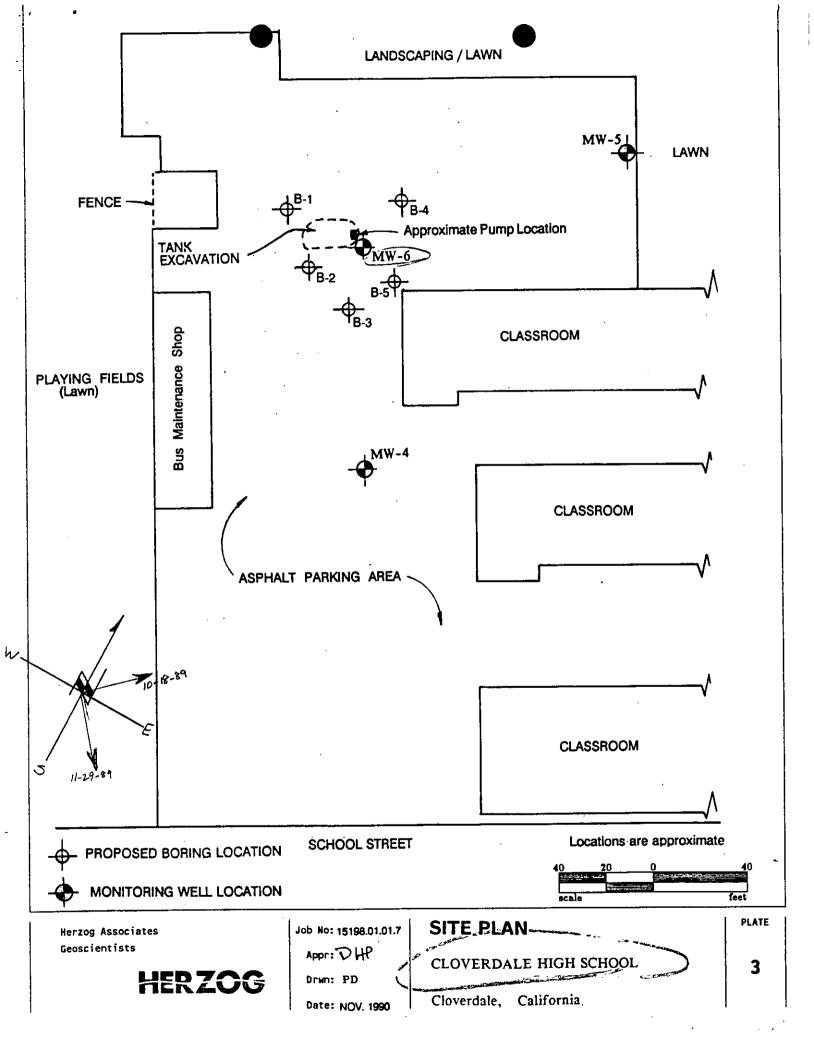
CLOVERDALE SCHOOLS

Cloverdale, California

PLATE

1





RECEIVED

HAZARDOUS MATERIALS

HEALTH AND SAFETY PLAN

1.0 General Project Information

Site Name:

Cloverdale High School and Washington Street

Elementary School

Site Location:

Cloverdale, California

Project No.

15198.1-1-7

Project Title:

Site Investigation

Project Manager:

Marc W. Seelev

Approval

Jaso (Haven

Site Health & Safety Officer: Lisa A. Havens

Date of Remedial Action: To be announced

Objectives:

To drill and sample one exploratory boring at Washington Elementary and five exploratory borings at Cloverdale High School.

Safety Issues:

The school principals will be informed of our activities as well as the safety issues involved. Herzog will attempt to schedule drilling when school is not in session. If drilling cannot be scheduled accordingly, the schools will be advised to keep the students well away from the drilling area, and/or to provide alternate play areas during recess and breaks. The drilling area will be cordoned off within a 20 to 30 foot radius about each boring location during drilling.

2.0 Emergency Contacts

Ambulance 911 911 Hospital Poison Control 911 Police 911 Fire 911

Project Manager:

Marc W. Seeley, 707-792-5613

H&S Officer:

Lisa A. Havens, 707-792-5658

Client:

Cloverdale Unified School District (707) 894-2548

Contact: Dr. Donald Sato

Nearest Hospital - Healdsburg General Hospital, phone (707) 433-4461, located at 1375 University in Healdsburg, California. Emergencies may be taken to Cloverdale Medical, phone (707) 894-2566, located at 100 West 3rd in Cloverdale, California.

3.0 Hazard Assessment

Apparent Ha	azard	Type of Faci	lity	Status of Facility
Serious Moderate Low None Unknown		Imp. Dump Landfill Open Other		Active X Inactive Unknown Other ools)
Waste Type		Waste Chara	acter	Route of Exposure
Gas Liquid Sludge Solid Unknown Reactive	Petroleum Vapors Gasoline, Diesel ———————————————————————————————————	Toxic Corrosive Ignitable Volatile Radioactive Unknown	<u>X</u> <u>X</u> <u>X</u>	Inhalation X Skin X Ingestion X Eye Contact Other
4.0 Persona	l Protective Equipme	ent Required		•
The followin	g checked-off equipm	nent is require	ed:	
X X X X	hard hat safety goggles outer gloves inner gloves Steel-toes boots other - monitoring	X equipment	tyvek suit neoprene bo face shield respirator	octs

^{*} Required only if volatile vapors detected by monitoring.

Criteria for use of respirator: Use if, within three feet of top of borehole, volatile readings are 5 parts per million (ppm) higher than background levels, using the field photoionization detector.

Herzog equipment shall not be provided to sub-contractors. Sub-contractors shall provide their own protective equipment and Health and Safety Plan.

4.1 First Aid And Safety Equipment

The followi	ng checked-off equipment is required:
	two-way radios
_X	fire extinguishers
	decontamination station
_X	first aid station
<u>X</u>	monitoring equipment - explosive gas detector or PID

5.0 Site Information On Chemical Hazard

The Cloverdale High School site previously had two underground petroleum storage tanks (gasoline and diesel). The Washington Street Elementary School site had one underground gasoline storage tank. All three tanks were removed in July 1986.

5.1 Relative Toxicity And Potential Health Risks Of Chemicals

Gasoline is a volatile, flammable liquid which has various constituents, such as benzene, naphthenes, paraffins, and ethyl alcohols. Benzene is the high energy component of gasoline and is usually present in concentrations between 0.8 percent to 2 percent. Benzene is a known human carcinogen.

The threshold limit value (TLV) for benzene is 10 ppm. The TLV for gasoline is 300 ppm. Application of the gasoline TLV requires professional judgement in the case of spills because the relative concentrations of the various constituents may change in the environment.

Inhalation of gasoline is known to cause headache, blurred vision, dizziness, and nausea. If these symptoms develop, evacuate to a clean area as soon as possible.



November 16, 1990 Cloverdale High School Project Number 15198.01-01-7

If symptoms persist longer than one hour, seek medical consultation. Otherwise, return to work when symptoms are gone; and, if monitoring indicates the same vapor levels present when symptoms occurred, upgrade to Level C. Acute inhalation exposure may result in intense burning of the throat and respiratory system. Asphyxiation may occur from oxygen displacement.

Ingestion of small amount of gasoline causes severe symptoms of poisoning, such as mild excitation, loss of consciousness, congestion, convulsions, cyanosis or death due to pneumonia. If accidental ingestion occurs, call poison control and get victim to a hospital immediately - DO NOT induce vomiting.

Dermal contact may cause drying of the skin, lesions, or allergic reactions. If skin contact occurs, flush with large quantities of clean water and wash with soap. If splashing into the eye occurs flush with a large quantity of water for at least 15 minutes and get victim to a hospital immediately.

The concentrations of gasoline previously detected in water should not pose a health risk, provided adequate ventilation is provided during drilling operations and site soil or water is not ingested or allowed to remain in contact with the skin.

6.0 Site Description (include safety precautions)

The sites consist of an elementary school and a high school. The excavations from the previous tank removals have been backfilled. All boring locations should be away from underground lines and utilities. The sites are generally paved with asphalt.

7.0 General Health And Safety Requirements

All Herzog personnel shall follow the Company Environmental Health and Safety Manual, except where this site specific Health and Safety plan conflicts, in which case this plan shall take precedence.

The following general safety procedures shall be followed by <u>all</u> persons visiting or working at the work site:

o A minimum of two persons are required on-site when activities are taking place.



- o No smoking, eating, drinking or chewing gum on-site. Wash hands and face before engaging in these activities off-site.
- o Avoid touching on-site materials, walking through known or suspected "hot zones" or contaminated puddles, kneeling or sitting on the ground, sitting or leaning against potentially contaminated equipment or machinery.
- o No visitors or other contractors are allowed on site without consent and knowledge of the Herzog site H&S officer or Herzog contact person.
- o All contractors or subcontractors shall contact the site H&S officer or project manager if any unsafe condition or practice occurs.

8.0 Routes Of Exposure And Methods Of Protection

8.1 Inhalation

Breathing a gas, vapor, mist, fume, or dust is the most common type of accidental exposure. Generally, respirators should be worn when activities that involve the generation of airborne particles or when organic vapors are suspected. It is the responsibility of the site H&S officer to determine where and when respirators will be worn (see Section 4.0 above).

8.2 Skin Absorption

Skin absorption is the second most common accidental means of entry of chemicals to the body. Avoid unnecessary contact with contaminated surfaces. All skin areas shall be protected when working with hazardous materials. Items to protect the skin may include: disposable tyvek suits, rubber boots, gloves and face shield.

After work is completed all protective equipment must be decontaminated or destroyed.



November 16, 1990 Cloverdale High School Project Number 15198.01-01-7

8.3 Ingestion

Ingestion is a common route of chemical exposure. Thus, the following activities are prohibited on site: eating, drinking, smoking and chewing gum.

8.4 Eye Contact

Most chemicals have the ability to injure the eye to some degree through surface contact or absorption. Appropriate safety goggles shall be worn on the site. Further, contact lenses are not allowed in work areas where hazardous chemicals are encountered. Cal/OSHA regulations do not allow contact lenses to be worn with a respirator.

8.5 Methods of Protection

An area shall be designated the decontamination zone. In this area, equipment decontamination prior to drilling (auger steam-cleaning), and removal and bagging of protective equipment (tyvek suits) shall occur. All other portions of the site should be considered potentially contaminated, and the protective measures provided herein should be utilized.

No persons other than those pre-approved by the site H&S officer should be allowed on the site during exploration activities.

9.0 Training Requirements

All Herzog personnel assigned to this project shall be trained for work at hazardous waste sites. All Herzog personnel shall have participated in and completed the 40-hour training program required under the Occupational Safety and Health Administration (OSHA) regulation, 29 CFR, 1910.120, and the Superfund Amendment Reauthorization Act (SARA) regulations.

No additional training requirements are necessary for this project.

Each day at the site a brief health and safety meeting will be held. At a minimum, the following information will be reviewed and discussed;



- o Work to do
- o Review of chemical/physical hazards
- o Basic/specific procedures

Compliance with the Health and Safety Plan will be documented on a sign-off sheet, at the beginning of each field day.

10.0 Authorization

<u>Site Safety Officer (SSO)</u>: The SSO has authority to enforce all rules and regulations applicable to this project and to ensure Herzog policies and procedures are followed.

<u>Project Manager (PM):</u> The PM has the responsibility of ensuring that all aspects of the Health and Safety Plan are reviewed prior to field activities.

Site Safety Officer:

Lisa A. Havens

Authorization:

Project Manager:

Marc W. Seelev

Authorization:

LAH:MWS:ts (75005.26)

Name	<u>Signature</u>	Affiliation	<u>Date</u>
			<u> </u>
-			
			, , , , , , , , , , , , , , , , , , ,
		,	

LEADED GASOLINE

1.1 Chemical Properties

- o Mixture of C_4 to C_{12} short chain and cyclic hydrocarbons.
- o Flammable, mobile, evaporates quickly on exposure to air; has characteristic odor. Insoluble in water, but soluble in ether, chloroform and benzene.
- This mixture of volatile and flammable aliphatic and aromatic 0 organic compounds is difficult to contain in soils if not intercepted soon after leakage. Because gasoline movement is impeded, but not stopped, by clay soils and is impeded very little by sandy soils, gasoline will migrate vertically and downgradient until it contacts groundwater where it will float or it may migrate downward only as long as there is sufficient pressure (head) to move it. However, because most gasoline floats on water, local, shallow groundwater, which usually responds quickly to rainfall or local irrigation practices, may accelerate movement laterally along sandy or gravel "stringers" in clay soils. Also, in fractured rock areas found in foothills the gasoline may move in an unpredictable direction. These conditions will impeded cleanup until the product can be sufficiently contained. Some components of gasoline such as benzene, toluene, and xylene (BTX) are soluble in water and must be dealt with separately.
- o Contains: Purgeable Aromatics

Benzene
Ethyl benzene
Toluene
Xylene
Chlorobenzene
1,2 - Dichlorobenzene
1,3 - Dichlorobenzene
Tert-butylmethyl ether
Lead
1,2 - Dickloroethane
Ethylene Dibromide

- o Although the above constituents occur in only minor amounts, they are recognized as being potentially the most hazardous.

 BTX and ethylbenzene can be detected using EPA Method 602.
- o Small amounts of tert-butylmethylether, ethylene dibromide and lead are added to gasoline for "anti-knock" purposes. Tert-butylmethylether has been added only for the last few years and therefore may indicate a fairly recent release of gasoline.

1.2 Toxicological Characteristics and Properties

- Organic lead compounds in concentrations greater than 13 mg/kg pose a safety hazard to workers and are classified as "hazardous" by DOHS above 13 mg/kg. Further, other volatile compounds such as EDB can also pose hazards to workers.
- O Class I disposal required if organic lead exceeds 13 mg/kg; Class II or Class I disposal, aeration or land farming if below 13 mg/kg.
- o Ingestion of gasoline causes inebriation, vomiting, vertigo, fever, drowsiness, confusion, cyanosis. Aspiration causes bronchitis or pneumonia. Inhalation causes bronchitis or pneumonia. Inhalation causes intense burning in the throat and lungs.
- The gasoline threshold odor concentration (TOC) is about 1 mg/l (ppm) in water but as low as 0.1 ppm for diesel or refined products. As petroleum products "age" underground they tend to take on a musty odor probably as a result of bacteriological degradation.

clm (ESD32)

CHEMICAL AND TOXICOLOGICAL PROPERTIES OF BENZENE, TOLUENE AND XYLENE (BTX)

1. BENZENE

- 1.1 Chemical Properties
 - o Clear, colorless highly flammable liquid.
 - o Slightly soluble in water; miscible with oils, chloroform and carbon tetrachloride.

1.2 Toxicological Properties

- o Listed as carcinogen by the EPA.
- o Ingestion or inhalation may cause: irritation of mucous membranes, restlessness, convulsions, excitement and depression. Chronic exposure may result in bone marrow depression and aplasia, and sometimes leukemia.
- o LD_{50} in rats: 3.8 ml/kg.

2. <u>TÓLUENE</u>

2.1 Chemical Properties

- o Flammable, refractive liquid with benzene-like odor.
- o Very slightly soluble in water, mixable with alcohol, chloroform, and ether.
- O Used as solvent for paints, lacquers, gums and resins; used as gasoline additive.

2.2 Toxicological Properties

- o Less toxic than benzene.
- o May cause mild macrocytic anemia, narcotic reaction of exposed to high concentrations.



3. XYLENE

3.1 Chemical Properties

- o Mobile, flammable liquid, colorless.
- o Insoluble in water, miscible in alcohol and ether.
- O Used as solvent, manufacturing dyes and as gasoline additive.

3.2 Toxicological Properties

- O Less toxic than benzene; chronic toxicity not well defined.
- o May be narcotic in high concentrations.

Sonoma County Department of Health Services Environmental Health Division 475 Aviation Blvd., Suite 220, Santa Rosa, CA 95403 Phone (707) 565-6565 Fax (707) 565-6525 www.sonoma-county.org

LUST Field Inspection Report

PROO 13846 site name Clouerdale High School site ID# 242Le Claverdale Blod, Claverdale RB Site ID# 1750108 ______By _________Firm _______ Date of notification Date and time of activity 7-18-2011 Excavation activities Soil borings Monitoring well: Construct Develop Sample Abandon GW levels Inspection - Final clear + cleanup for closure Site: Consultation Domestic well: Sample Other Notes ____ MW-S distriction while still under a is elegant elegar of abandonment dubis, collection or any other remnant of construction/ destruct the monitoring wells. ____ Site time <u>1:30 pm</u> -Travel time _____//O min Arrival time ___ lust field insp.doc Rev. December 2004 Distribution: White-file Yellow-NCRWQCB

FACT SHEET FOR SITE DOCUMENT FILED ELSEWHERE (INCLUDES ROLLED MAPS)

DOCUMENT: Report - Monitoring Well Abandonment	Fer Case
Closure - Farmer UST Site.	·
SITE NUMBER: # 24210	
SITE ADDRESS: 509 Cloverdale Blvd., Cloverdale	
DATE DOCUMENT RECEIVED: (4.30.1)	
LOCATION OF DOCUMENT IF NOT IN ACCORDION FOLDER:	

DEPT. OF HEALTH SVCS

JUN 3 0 2011

GEORGE GOOBANOFF ASSOCIATES

Environmental Health & Safety Management 218 Burgundy Road Healdsburg, CA 95448 tel/fax 707-433-4647 ENVIRONMENTAL HEALTH DIVISION

June 28, 2011 Project No: 226.9805

Ms. Darcy Bering Sonoma County Environmental Health Division 475 Aviation Blvd., Suite 220 Santa Rosa, CA 95403

RE:

REPORT- MONITORING WELL ABANDONMENT FOR CASE CLOSURE - FORMER UST SITE Cloverdale High School 509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426. NC-RWQCB Site #1TSO108

Dear Ms. Bering:

EXECUTIVE SUMMARY

This Report for Monitoring Well Abandonment (Report) has been prepared at the request of Ms. Claudia Rosatti, Superintendent of Cloverdale Unified School District (CUSD), and in accordance with the Sonoma County Environmental Health Division (SCEHD) annual review letters dated December 18, 2000, September 6, 2001, February 11, 2004, April 18, 2006, March 20, 2007, September 25, 2008, April 29, 2009, and March 1, 2011.

The site investigation has previously received concurrence for closure from the SCEHD and the North Coast Regional Water Quality Control Board (NC-RWQCB) in accordance with the SCEHD letters dated June 19, 2001 and December 14, 2001. However, a Remedial Action Completion Certificate has not been issued since the shallow groundwater monitoring wells at the site had not been properly abandoned.

Monitoring wells MW-4 and MW-6¹ have been properly abandoned at the referenced site, and all waste produced during the abandonment procedures has been disposed of (documentation included in this report). Additionally, the site information has been uploaded to the State GeoTracker database as required by the County and State.

Finally, it is our opinion based on the completion of these tasks, that Case Closure should be granted to this site with no further action needed.

¹In accordance with our *Response to Annual Review and Recommendation for Case Closure* report dated February 6, 2009 and the SCEHD letter dated April 29, 2009, MW-5 (located underneath a semi-permanent classroom portable) was left in place.

BACKGROUND

An investigation has been performed at this site due to former underground storage tanks (UST's) containing petroleum hydrocarbon products located near the bus maintenance building at the referenced site (Plate 1, Site Location Map). The location of the former UST's is also presented on Plate 2 attached to this Report.

A 1,000 gallon UST that contained diesel fuel (TPH-D) and a 350 gallon UST that contained gasoline (TPH-G) were removed from the site on July 17, 1986 by Herzog Associates (Herzog). Soil samples were collected from the UST removal pit that resulted in concentrations of TPH-D and TPH-G at concentrations of 620 and 730 ppm, respectively.

Herzog returned to the site on July 28, 1986 to over-excavate soils from the UST removal pit. Approximately 5 ½ feet of additional soil was removed from the bottom of the former UST pit. Additional soil samples were collected from the bottom of the excavation pit that resulted in TPH-D at 31 ppm and 10 ppm, and TPH-G at 800 ppm.

In October 1989, Herzog installed three (3) shallow groundwater monitoring wells (MW-4, MW-5, and MW-6) at the locations presented on Plate 2. During the monitoring well installation, Herzog collected soil and groundwater samples from the monitoring well soil borings. Analysis of the soil and groundwater samples resulted in no detections of compounds analyzed for in monitoring wells MW-4 and MW-5. However, the soil sample from 5.5 ft bgs in MW-6 resulted in 1,700 ppm of TPH-G and 3,200 ppm of TPH-D, and the initial grab groundwater sample collected from MW-6 resulted in 1.3 ppm of TPH-G and 7.4 ppm of TPH-D.

The tank removal, over-excavation, and installation of the monitoring wells, is documented in Herzog Associates' "Report of Underground Tank Investigations" dated January 22, 1990.

Beginning in 1998, George Goobanoff Associates (GGA) performed five (5) groundwater monitoring events of monitoring wells MW-4 and MW-6. The location of MW-5 could not be verified since it appeared to be located beneath a portable classroom building, and therefore was not sampled during these events. Based on the SCEHD letter dated December 18, 2000, groundwater samples have not been collected from monitoring well MW-5 since 1991.

According to Ms. Sharon Richardson, CUSD Maintenance Supervisor, the portable classrooms were placed at their current locations in 1998 (prior to when GGA began monitoring). The results of the five (5) groundwater monitoring events for monitoring wells MW-4 and MW-6 performed by GGA are as follows:

T	able: Sun	nmary of A	nalytical	Results	- Ground	lwater M	onitoring	(1998-99)	
Date	Sample ID	TPH-G	TPH-D	В	Т	E	m,p-X	o-X	MTBE
,3/3/98	MW-4	ND E	, ND	ND	ND	ND	ND	ND N	ND
5/27/98	1.MW-4.M	ND	ND.	AND.	ND	ND 4	A CON	U ND	J. ND
9/30/98	MW-4	ND	ND	ND	ND	ND	ND	ND	∥ ND ↓
12/16/98	MW-4	ND	ND	D	ND	ND	ND	ND	ND
5/4/99	MW-4	ND##	4ND	MD NO	ND	NO NO	ND I	ND V	ND
3/3/98	MW-6	0.065 mg/L	ND	ND	ND	ND	ND	0.56 μg/L	ND
5/27/98	MW-6	ND	ND	ND	ND	ND	ND	ND	ND
9/30/98	MW-6	ND	ND	ND	ND	ND	ND	ND	ND
12/16/98	MW-6	ND	ND	ND	ND	ND	ND	ND	ND
5/4/99	MW-6	ND	ND	ND	ND	ND	ND	ND	ND

Notes: ND = Not Detected

The above results were submitted to the SCEHD in GGA's report dated August 9, 1999. This report included a recommendation to cease monitoring well sampling and also recommended case closure.

In June 2001, a GGA representative visited the site to determine the status of the monitoring wells. GGA completed a Status Report dated June 29, 2001 that was submitted to the SCEHD. At the time of that report, monitoring well MW-6 was located and accessible, MW-4 had been paved over and not located, and monitoring well MW-5 was not located and presumed to be beneath the portable classroom based on older site diagrams.

In response to the SCEHD requirements in numerous letters, GGA prepared the *Response to SCEHD Annual Review and Recommendation for Case Closure* report dated February 6, 2009. That report provided the SCEHD justification that by leaving one monitoring well in place (MW-5, located beneath a semi-permanent portable classroom), shallow groundwater would not be adversely impacted. The SCEHD approved leaving MW-5 in place and to proceed with abandonment of MW-4 and MW-6 (Plate 2) in their letter dated April 29, 2009.

GGA completed the Work Plan dated June 14, 2011, approved by Ms. Darcy Bering, SCEHD in her e-mail dated June 15, 2011, to complete the well abandonment at the site.

SCOPE OF WORK

The following scope of work was implemented to complete the monitoring well abandonment at this site.

- Project Management, Coordination, Permitting, Scheduling;
- Monitoring Well Abandonment;
- Laboratory Analysis;
- Waste Disposal;
- GeoTracker Complaince;
- Recommendations for this site.

The following presents a brief description of the above tasks.

PROJECT MANAGEMENT, COORDINATION, PERMITTING, SCHEDULING

GGA consulted with Ms. Sharon Richardson, CUSD, prior to the site work to gain authorization for the work. The CUSD authorized the work in accordance with GGA's Professional Services Agreement dated January 27, 2011 (authorized by CUSD on April 14, 2011), and the CUSD's Purchase Order Agreement dated June 1, 2011.

Upon approval from the CUSD to complete the work, GGA prepared the Work Plan for Monitoring Well Abandonment dated June 14, 2011, which was approved by Ms. Darcy Bering in accordance with her e-mail transmittal dated June 15, 2011. Additionally, GGA submitted the SCEHD drilling permit for well abandonment which Ms. Bering approved on June 15, 2011 (SCEHD Drilling Permit #SR0010084).

GGA's representatives traveled to the site on June 14, 2011 to mark the work area in white paint, and notified underground services alert (USA) for utility clearance. USA issued clearance number 187866.

In anticipation of CUSD's authorization of the work, GGA scheduled our subcontracted drilling company to complete the work on June 16, 2011 as described in the following sections of this report.

Page 5

REPORT - MONITORING WELL ABANDONMENT FOR CASE CLOSURE - FORMER UST SITE Cloverdale High School 509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

MONITORING WELL ABANDONMENT

GGA retained the services of Clear Heart Drilling, Inc., a State of California C-57 licensed drilling contractor (780357) to over drill the 4-inch well casings of monitoring wells MW-4 and MW-6 using 10-inch diameter hollow stem augers. After drilling out the well construction material and removing the well casing, the open boring was grouted to within 6 inches of grade with a 5% bentonite/cement slurry or bentonite/grout slurry using the tremmie method. The final 6 inches was completed with black concrete to match the existing surface. For each well the PVC well casing and the Christy box was removed from the site and disposed of by the drilling contractor.

Drill cuttings were contained in three (3) labeled 55-gallon steel DOT drums. Soil samples were collected from each of the three drums for waste disposal purposes. Samples were collected using laboratory supplied glass jars, labeled, and placed into an ice chest containing frozen "blue ice" for transmittal to our subcontracted State Certified analytical laboratory.

Upon completion of abandonment activities, the augers and other equipment was decontaminated on site. The decontamination water was contained in a labeled 55-gallon steel DOT drum for disposal.

LABORATORY ANALYSIS

GGA transmitted three (3) soil samples collected from the 55-gallon drums to our subcontracted State Certified analytical laboratory, Analytical Sciences, in Petaluma, CA for disposal analysis. GGA submitted the Chain of Custody Form requesting the laboratory composite the samples using a 3:1 ratio, and analyze the composite sample for the following:

- TPH-G using EPA Test Method 8015M;
- TPH-D using EPA Test Method 8015M;
- BTEX/Oxy's/Pb Scav's using EPA Test Method 8260B;
- 5 LUFT Metals using EPA Test Method 6010.

There were no detections of compounds related to petroleum hydrocarbons in the composite sample. All metals resulted in levels representative of regional background. However, the concentration of 54 ppm of Lead exceeds the landfill required threshold of 50 ppm for acceptance. Therefore, GGA requested the sample be extracted by STLC and analyzed for Lead. There were no detections of Lead after the STLC extraction process. The Analytical Sciences Laboratory and QA/QC Report dated June 24, 2011 is attached to this report.

Page 6

REPORT - MONITORING WELL ABANDONMENT FOR CASE CLOSURE - FORMER UST SITE Cloverdale High School 509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

WASTE DISPOSAL

The drill cuttings were stored in three (3) steel 55-gallon DOT drums, and the decontamination water was stored in one (1) 55-gallon DOT drum. The drums were labeled prior to leaving the site.

GGA coordinated disposal of three (3) drums containing drill cuttings (soil) and one (1) drum containing decontamination water from the monitoring well abandonment activities. Our subcontracted disposal company, EnviroPacific, of Vacaville, CA loaded and hauled the four drums on June 22, 2011.

The drums containing soil were disposed of at Recology Hay Road Landfill, 6426 Hay Rd., Vacaville, CA, and the drum containing decontamination water was disposed of at EBMUD located at 2020 Wake Avenue in Oakland, CA.

The Non-Hazardous Soil and Water Disposal Documents dated June 22, 2011 are attached to this report for reference.

GEOTRACKER COMPLIANCE

As a final task for this site, and to gain final case closure, all information dating back to 2004 has been submitted to the State Geotracker database. CUSD authorized GGA's representatives to upload data to the State database, including this report.

RECOMMENDATIONS

Based on the historic soil and groundwater data collected since the former UST was removed, the closure approval issued by the NC-RWQCB and SCEHD, proper abandonment of the accessible monitoring wells, and compliance with the State GeoTracker database, we recommend that this UST investigation be closed with no further action needed.

Page 7

REPORT - MONITORING WELL ABANDONMENT FOR CASE CLOSURE - FORMER UST SITE Cloverdale High School 509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

If you have any questions please call us at 707-528-0810.

Sincerely,

George Goobanoff Associates

David L. Bush Project Geologist

Marc W. Seeley, PG 6824

Senior Geologist

Attachments:

Plate 1:

Site Location Map

Plate 2:

Site Map Including Monitoring Well Locations

Non-Hazardous Soil Disposal Document dated June 22, 2011 Non-Hazardous Water Disposal Document dated June 22, 2011

Analytical Laboratory and QA/QC Report dated June 24, 2011

CC:

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street, Cloverdale, CA 95425

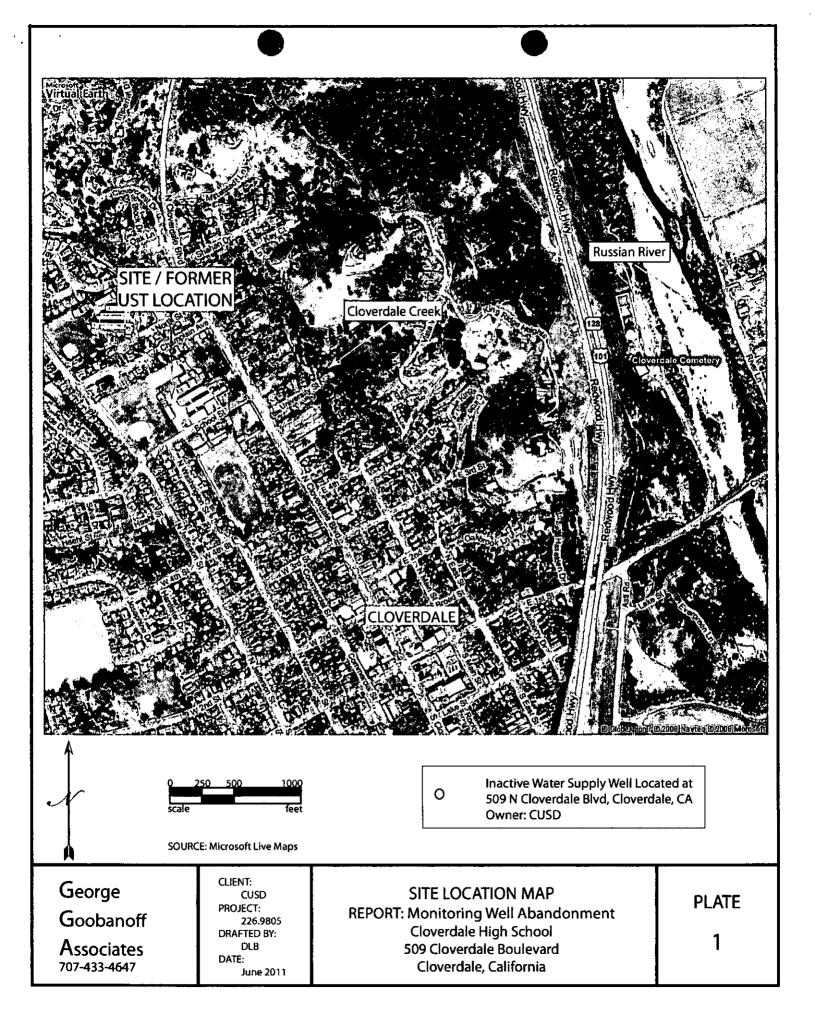
Ms. Sharon Richardson, Maintenance & Operations Supervisor Cloverdale Unified School District 97 School Street, Cloverdale, CA 95425

Mr. Luis Rivera (via Geotracker) NC-RWQCB 5550 Skylane Blvd., Suite A, Santa Rosa, CA 95403

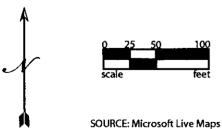
Mr. David Charter (via Geotracker)

SWRCB Cleanup Fund

P.O. Box 944212, Sacramento, CA 94244-2120









MW-5 left in place since portable classroom inhibits access. Rational for leaving in place included in GGA's Jan 2009 Report, approved by SCEHD.



MW-4 and MW-6 properly abadoned on June 16, 2011 under SCEHD permit.

George Goobanoff Associates 707-433-4647 CLIENT:
CUSD
PROJECT:
226.9805
DRAFTED BY:
DLB
DATE:
June 2011

SITE MAP WITH APPROXIMATE MONITORING WELL LOCATIONS

REPORT: Monitoring Well Abandonment Cloverdale High School 509 Cloverdale Boulevard Cloverdale, California **PLATE**

2

EnviroPacific

P.O. Box 1053, Vacaville, CA 95696, (707) 447-2106 GEC Lic. No. A-876019

NON-HAZARDOUS SOIL DISPOSAL DOCUMENT

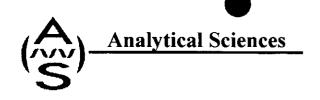
Name:									
ARITIE.	Cloverdale	Unified Sch	ool District,	, Sharon	Richardson	Name:	Cloverdale Unified	School District	
Address:	97 School	Street, Clow	erdale, CA	95425		Address:	509 N. Cloverdale I	Btvd., Cloverdaie	, CA
Contact:	David Bush	ı. EGS	Tel:	(707) 5	528-0810	Contact:	David Bush, EGS	Tel:	(707) 528-081
								•	
CUST	OMER								
lame:	Environme	ntal Geology	y Services			Contact:	David Bush	Tel:	(707) 528-081
ddress:	1695 Willow	wside Rd., S	Santa Rosa,	, CA 954	01	Proj. No.:	226.9805	P.O.:	
						-			
DESC	RIPTION	ı.							_
								,	
Description	1 Of Soil:	Soil drift co	uttings/Well	i destruct	tion debns				
	Quantity:	3		Units: _	Drums	_			
o applicad	le regulations	and posse:	rocarbons. sses no cha	l certify aracterist	that the above tics that would	named mate	on material, a combina erial has been properi andling as a hazardos	ly described and us waste.	classified accord
	le regulations Authorized A	and posse	sses no cha	I certify aracterist	tics that would	named mate	erial has been proper andling as a hazardos	ly described and us waste.	classified accord $\frac{6/2z/n}{2z}$
	le regulations	and posse	sses no cha	I certify aracterist	tics that would	e named mate I require its h	erial has been proper andling as a hazardos	ly described and us waste.	6/22/11
Generator/	le regulations	gent:	sses no cha	I certify aracterist	tics that would	e named mate I require its hi	erial has been proper andling as a hazardos	us waste.	6/22/11
Generator/	le regulations Authorized A	gent:	sses no cha	1 certify aracterist	tics that would	e named mate I require its hi	erial has been proper andling as a hazardor 3-5-4 Sign	ILITY	6/22/11
Generator/ TRAN Jame:	SPORT	gent:	int Name/I	1 certify aracterist	tics that would	DESI	erial has been proper andling as a hazardon Sign	ILITY andfill	6/22/11 Oate
TRAN Name;	SPORT	gent: Pri	int Name/I	aracterist	tics that would	DESIC	erial has been proper andling as a hazardor Sign GNATED FAC Recology Hay Rd L	ILITY andfill	6/22/11 Oate
TRAN Name;	SPORTI EnviroPacit	gent: Pri	int Name/I	aracterist	DAV	DESIGNAME: Address:	erial has been proper andling as a hazardor Sign GNATED FAC Recology Hay Rd L	ILITY andfill aville, CA 95687	6/22/11 Date
Generator/	SPORTI EnviroPacit	gent: Pri	int Name/IU)6-2	DAN 53	DESIGNAME: Address:	erial has been properlandling as a hazardon Sign GNATED FAC Recology Hay Rd L 6426 Hay Rd., Vac rial will be disposed of a with applicable feder	ILITY andfill aville, CA 95687	6/22/11 Date
TRAN Name: Address:	SPORTI EnviroPacit	gent: Pri	int Name/IU)6-2	TAW	DESIC Name: Address:	erial has been properlandling as a hazardon Sign GNATED FAC Recology Hay Rd L 6426 Hay Rd., Vac rial will be disposed of a with applicable feder	ILITY andfill aville, CA 95687 f at the above record, state and local	6/22/11 Date

EnviroPacific

P.O. Box 1053, Vacaville, CA 95696, (707) 447-2108 GEC Ltc. No. A-876019

NON-HAZARDOUS WATER DISPOSAL DOCUMENT

OLM	ERATOR	SITE			
Name:	Cloverdale Unified School District, Sharon Richardson	Name:	Cloverdale Unified S	School District	
Address:	97 School Street, Cloverdale, CA 95425	_ Address:	509 N. Cloverdale B	llvd., Cloverdale	, CA
Contact:	David Bush Tel: (707) 528-0810	Contact:	David Bush	Tel:	(707) 528-0810
CUST	TOMER				
Name:	Environmental Geology Services	Contact:	David Bush	Tel:	(707) 528-0810
Address:	1895 Willowside Rd., Santa Rosa, CA 95401	– Proj. No.:	226.9805	₽.0.:	
DESC	CRIPTION				
Description	n of Water: Auger Rinse Water				
	Quantity: 1 Units: Drum	_			
described	nazardous waste water is purged groundwater, auger rinse above. The described water may contain hydrocarbons, according to applicable regulations and possesses no characteristics.	certify that the certify that the	ne above named mater at would require its har	ial has been pro	perly described and rdous waste.
described classified a Generator/	above. The described water may contain hydrocarbons. according to applicable regulations and possesses no characteristic described Agent: DAVID L. TVSH PR. Print Name/Title GE	Sectify that the acteristics that the acteristic that the act	ne above named mater at would require its har Sign	nal has been prodiing as a haza	perly described and
described classified a	above. The described water may contain hydrocarbons. according to applicable regulations and possesses no characteristic and p	DESK	sign Sign	nal has been prodiing as a haza	perly described and rdous waste.
described classified a Generator/	above. The described water may contain hydrocarbons. according to applicable regulations and possesses no characteristic described Agent: DAVID L. TVSH / PR.	DESI Name:	sign Sign SNATED FACI	hal has been prodiing as a haza	perly described and rdous waste.
described classified a Generator/	above. The described water may contain hydrocarbons. according to applicable regulations and possesses no characteristic described Agent: DAVID L. TUSH Print Name/Title GENTINE	DESK	sign Sign	hal has been prodiing as a haza	perly described and rdous waste.
described classified a Generator/ TRAN Name: Address:	above. The described water may contain hydrocarbons. according to applicable regulations and possesses no characteristic described Agent: DAVID L. TUSH PR.	DESI Name: Address:	sign Sign SNATED FACI	LITY , Oakland, CA	periy described and ridous waste. C/2 2/11 Date
described classified a Generator/ TRAN Name: Address:	above. The described water may contain hydrocarbons. according to applicable regulations and possesses no characteristic described Agent: DAVID L. TUSH PR.	DESI Name: Address:	Sign SNATED FACI EBMUD 2020 Wake Avenue, rial will be disposed of the with applicable feder	LITY , Oakland, CA	periy described and ridous waste. C/2 2/11 Date
TRAN Name: Address: Tel:	above. The described water may contain hydrocarbons. according to applicable regulations and possesses no characteristic described Agent: DAVID L. TUSH PR.	DESI Name: Address:	Sign SNATED FACI EBMUD 2020 Wake Avenue, rial will be disposed of the with applicable feder	LITY , Oakland, CA	periy described and ridous waste. UZZ/II Date



June 24, 2011

Marc Seeley Environmental Geology Services 1695 Willowside Road Santa Rosa, CA 95401

Dear Marc,

Enclosed you will find Analytical Sciences' final report 1061708 for your Cloverdale High School project. An invoice for this work is enclosed.

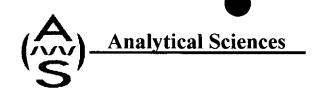
Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

Sincerely,

Analytical Sciences

Mark A. Valentini, Ph.D.

Laboratory Director



Report Date: June 24, 2011

Laboratory Report

Marc Seeley Environmental Geology Services 1695 Willowside Road Santa Rosa, CA 95401

Project Name:

Cloverdale High School

Lab Project:

1061708

This 9 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.

Mart. A. Valenticie

Laboratory Director



TPH Gasoline

Lab#	Sample ID	Compound Name		Result (mg/kg)	RDL (mg/kg)
1061708-01	Drum 1,2,3 Composite	Gasoline		ND	1.0
Data Campled	06/16/11	Date Analyzed:	06/17/11	QC E	Batch: B009247
Date Sampled:					

Volatile Hydrocarbons by GC/MS

Lab#	Sample ID	Compo	ound Name		Result (µg/kg)	RDL (µg/kg)	
1061708-01	Drum 1,2,3 Composi	te Benzer	ne		ND	2.0	
		Toluen	e		ND	2.0	
		Ethylbo	enzene		ND	2.0	
		m,p-X	ylene		ND	2.0	
		o-Xyle	ne		ND	2.0	
		1,2-Die	chloroethane (EDC	C)	ND	2.0	
		1,2-Dil	bromoethane (EDI	3)	ND	2.0	
		Tertiar	y Butyl Alcohol (1	ГВА)	ND	25	
		Methyl	l tert-Butyl Ether (MTBE)	ND	2.0	
		Di-isop	propyl Ether (DIPI	Ξ)	ND	2.0	
		Ethyl te	ert-Butyl Ether (E	TBE)	ND	2.0	
		Tert-A	myl Methyl Ether	(TAME)	ND	2.0	
	Surrogates R	esult (µg/L)	% Recove	ery	Acceptance Range (%)	
Dibromofluoro	methane	6.02	/ 30	M2	70-130		
Toluene-d8		20.7	104		70-130		
4-Bromofluoro	benzene	20.6	103		70-130		
Date Sampled:	06/16/11		Date Analyzed:	06/17/11	QC Bate	ch: B009246	
Date Received:	06/17/11		Method:	EPA 8260B			



TPH Diesel

Lab#	Sample ID	Compound Name		Result (mg/kg)	RDL (mg/kg)
1061708-01	Drum 1,2,3 Composite	Diesel		ND	5.0
Date Sampled:	06/16/11	Date Analyzed:	06/20/11	QC E	Batch: B009327
Date Received:	06/17/11	Method:	EPA 8015		<u>veni</u>
					ce Partiriet
			Metals		Lard (

		Luit Metais		\alpha color			
Lab#	Sample ID	Compound Name	Result (mg/l	(B) Stell	RDL (mg/kg)		
1061708-01	Drum 1,2,3 Composite	Cadmium (Cd)	0.83	.25	0.50		
		Chromium (Cr)	11	.25	1.5		
		Lead (Pb)	54	.25	3.0		
		Nickel (Ni)	10	,25	2.0		
	,	Zinc (Zn)	150	ì	5.0		
Date Sampled:	06/16/11	Date Analyzed: 06/20/11		QC Batcl	h: B009323		
Date Received:	06/17/11	Method: EPA 6010B					

STLC Metals

Lab#	Sample ID	Compound Name	F	Result (mg/L)	RDL (mg/L)
1061708-01	Drum 1,2,3 Composite	Lead (Pb)		ND	0.50
Date Sampled:	06/16/11	Date Analyzed:	06/23/11	QC	Batch: B009271
Date Received:	06/17/11	Method:	STLC/EPA 6010B		



Quality Assurance Report

TPH Gasoline

·		Danartina		C-:1-	C		0/DEC		D DIX	
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B009247 - EPA 5030 GC										
Blank (B009247-BLK1)				Prepared	& Analyz	zed: 06/03	3/11			
Gasoline	ND	1.0	mg/kg							
LCS (B009247-BS1)				Prepared	& Analyz	zed: 06/03	3/11			
Benzene	0.022	0.005	mg/kg	0.0250		89	70-130			
Toluene	0.022	0.005	mg/kg	0.0250		90	70-130			
Ethylbenzene	0.022	0.005	mg/kg	0.0250		89	70-130			
Xylenes	0.067	0.015	mg/kg	0.0750		90	70-130			
LCS Dup (B009247-BSD1)				Prepared	& Analya	zed: 06/03	8/11			
Benzene	0.023	0.005	mg/kg	0.0250		91	70-130	2	20	
Toluene	0.023	0.005	mg/kg	0.0250		91	70-130	2	20	
Ethylbenzene	0.023	0.005	mg/kg	0.0250		91	70-130	2	20	
Xylenes	0.070	0.015	mg/kg	0.0750		93	70-130	4	20	



Volatile Hydrocarbons by GC/MS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B009246 - EPA 5030 GC/MS										
Blank (B009246-BLK1)				Prepared	& Analyz	ed: 06/03	711			
Benzene	ND	2.0	μg/kg							-
Гoluene	ND	2.0	μg/kg							
Ethylbenzene	ND	2.0	μg/kg							
n,p-Xylene	ND	2.0	μg/kg							
o-Xylene	ND	2.0	μg/kg							
,2-Dichloroethane (EDC)	ND	2.0	μg/kg							
,2-Dibromoethane (EDB)	ND	2.0	μg/kg							
Tertiary Butyl Alcohol (TBA)	ND	25	μg/kg							
Methyl tert-Butyl Ether (MTBE)	ND	2.0	μg/kg							
Di-isopropyl Ether (DIPE)	ND	2.0	μg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	μg/kg							
Cert-Amyl Methyl Ether (TAME)	ND	2.0	μg/kg							
Surrogate: Dibromofluoromethane	19.8		μg/L	20.0		99	70-130			
Surrogate: Toluene-d8	23.5		μg/L	20.0		118	70-130			
Surrogate: 4-Bromofluorobenzene	16.2		μg/L	20.0		81	70-130			
LCS (B009246-BS1)				Prepared	& Analyz	zed: 06/03	3/11			
1,1-Dichloroethene (1,1-DCE)	21.8	2.0	μg/kg	25.0		87	70-130			
Benzene	25.9	2.0	μg/kg	25.0		104	70-130			
Trichloroethene (TCE)	26.7	2.0	μg/kg	25.0		107	70-130			
l'oluene	21.2	2.0	μg/kg	25.0		85	70-130			
Chlorobenzene	23.7	2.0	μg/kg	25.0		95	70-130		<u>. </u>	
Surrogate: Dibromofluoromethane	22.8		μg/L	20.0		114	70-130			
Surrogate: Toluene-d8	17.9		μg/L	20.0		89	70-130			
Surrogate: 4-Bromofluorobenzene	17.1		μg/L	20.0		85	70-130			
CS Dup (B009246-BSD1)				Prepared	& Analyz	zed: 06/03	3/11	. . .		
1,1-Dichloroethene (1,1-DCE)	22.4	2.0	μg/kg	25.0		89	70-130	3	20	
Benzene	26.2	2.0	μg/kg	25.0		105	70-130	1	20	
Trichloroethene (TCE)	25.8	2.0	μg/kg	25.0		103	70-130	3	20	
l'oluene	23.5	2.0	μg/kg	25.0		94	70-130	10	20	
Chlorobenzene	24.3	2.0	μg/kg	25.0		97	70-130	3	20	
Surrogate: Dibromofluoromethane	20.8		μg/L	20.0		104	70-130			
Surrogate: Toluene-d8	19.8		μg/L	20.0		99	70-130			
Surrogate: 4-Bromofluorobenzene	16.6		μg/L	20.0		83	70-130			

Lab Project#: 1061708



TPH Diesel

Analyte	Resul	Reporting lt Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B009327 - EPA 3550B GC								=		
Blank (B009327-BLK1)				Prepared	& Analyz	zed: 06/20)/11			
Diesel	ND	5.0	mg/kg							
Matrix Spike (B009327-MS1)		Source: 106170	8-01	Prepared	& Analyz	zed: 06/20	D/1 1			
Diesel	237	5.0	mg/kg	222	ND	107	65-135		·	
Matrix Spike Dup (B009327-MSD1)		Source: 106170	8-01	Prepared	& Analyz	zed: 06/20	0/11			
Diesel	233	5.0	mg/kg	220	ND	106	65-135	0.9	30	



Luft Metals

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B009323 - EPA 3050B										
Blank (B009323-BLK1)				Prepared	& Analyz	zed: 06/20	0/11			
Cadmium (Cd)	ND	0.50	mg/kg							
Chromium (Cr)	ND	1.5	mg/kg							
Lead (Pb)	ND	3.0	mg/kg							
Nickel (Ni)	ND	2.0	mg/kg							
Zinc (Zn)	ND	5.0	mg/kg							
LCS (B009323-BS1)				Prepared	& Analyz	zed: 06/20)/11			
Cadmium (Cd)	28.0	0.50	mg/kg	25.0		112	70-130			
Chromium (Cr)	26.7	1.5	mg/kg	25.0		107	70-130			
Lead (Pb)	27.0	3.0	mg/kg	25.0		108	70-130			
Nickel (Ni)	27.5	2.0	mg/kg	25.0		110	70-130			
Zinc (Zn)	26.2	5.0	mg/kg	25.0		105	70-130			
LCS Dup (B009323-BSD1)				Prepared	& Analyz	zed: 06/20)/11			
Cadmium (Cd)	28.0	0.50	mg/kg	25.0		112	70-130	0.1	20	
Chromium (Cr)	26.6	1.5	mg/kg	25.0		106	70-130	0.2	20	
Lead (Pb)	27.1	3.0	mg/kg	25.0		109	70-130	0.5	20	
Nickel (Ni)	27.4	2.0	mg/kg	25.0		110	70-130	0.3	20	
Zinc (Zn)	26.4	5.0	mg/kg	25.0		106	70-130	0.9	20	



STLC Metals

Analyte	Resu	Reporting lt Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B009271 - DI Wet/TCLP/STLC	prep									
Blank (B009271-BLK1)				Prepared	: 06/08/11	Analyze	ed: 06/09/1	11		
Lead (Pb)	ND	0.50	mg/L							
Matrix Spike (B009271-MS1)		Source: 1052705	5-01	Prepared	: 06/08/11	Analyze	ed: 06/09/1	1		
Lead (Pb)	10.7	0.50	mg/L	5.00	5.25	108	70-130			
Matrix Spike Dup (B009271-MSD1)		Source: 1052705	5-01	Prepared	: 06/08/11	Analyze	ed: 06/09/1	11		
Lead (Pb)	10.7	0.50	mg/L	5.00	5.25	108	70-130	0.2	20	



Notes and Definitions

M2	An unspecified matrix interference resulted in a low surrogate recovery for this sample.
RDL ND	Reporting Detection Limit Analyte NOT DETECTED at or above the reporting detection limit (RDL)
RPD	Relative Percent Difference
NR	Not Reported

CHAIN OF CUSTODY

Analytical Sciences P.O. Box 750336, Petaluma, CA 94975-0336 110 Liberty Street, Petaluma, CA 94952 (707) 769-3128

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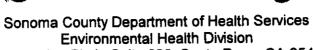
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The Court

SAMPLED BY:

RELINGUISHED BY:



475 Aviation Blvd., Suite 220, Santa Rosa, CA 95403 Phone (707) 565-6565 Fax (707) 565-6525 www.sonoma-county.org

LUST Field Inspection Report

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Name of Document:	W() - MW abandsoner+
Date Received:	6-14-11.
Review initiated by:	

GEORGE GOOBANOFF ASSOCIATES

Environmental Health & Safety Management
218 Burgundy Road
Healdsburg, CA 95448
tel/fax 707-433-4647

V. J. J. J. 14, 2011 Project No: 226.9805

Ms. Darcy Bering Sonoma County Environmental Health Division 475 Aviation Blvd., Suite 220 Santa Rosa, CA 95403

RE:

WORK PLAN - MONITORING WELL ABANDONMENT

FOR CASE CLOSURE - FORMER UST SITE

Cloverdale High School

509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

Dear Ms. Bering:

This Work Plan for Monitoring Well Abandonment (Work Plan) has been prepared at the request of Ms. Claudia Rosatti, Superintendent of Cloverdale Unified School District (CUSD), and in accordance with the Sonoma County Environmental Health Division (SCEHD) annual review letters dated December 18, 2000, September 6, 2001, February 11, 2004, April 18, 2006, March 20, 2007, September 25, 2008, April 29, 2009, and March 1, 2011.

The site investigation has received concurrence for closure from the SCEHD and the North Coast Regional Water Quality Control Board (NC-RWQCB) in accordance with the SCEHD letters dated June 19, 2001 and December 14, 2001. However, a Remedial Action Completion Certificate has not been issued since the shallow groundwater monitoring wells at the site have not been properly abandoned.

This Work Plan describes the procedures that will be used for proper abandonment of the monitoring wells MW-4 and MW-6¹. The Site Health & Safety Plan is also included as an attachment to this Work Plan. Additionally, we have included the SCEHD drilling permit application for review.

The monitoring well abandonment work is scheduled for June 16, 2011. Please review the Work Plan and drilling permit application and provide any comments so the well abandonment permit can be issued and we can proceed with well abandonment and case closure.

¹In accordance with our *Response to Annual Review and Recommendation for Case Ciosure* report dated February 6, 2009 and the SCEHD letter dated April 29, 2009, monitoring well MW-5 (located underneath a semi-permanent classroom portable) will be left in place.

BACKGROUND

An investigation has been performed at this site due to former underground storage tanks (UST's) containing petroleum hydrocarbon products located near the bus maintenance building at the referenced site (Plate 1, Site Location Map). The location of the former UST's is presented on Plate 2 attached to this Work Plan.

A 1,000 gallon UST that contained diesel fuel (TPH-D) and a 350 gallon UST that contained gasoline (TPH-G) were removed from the site on July 17, 1986 by Herzog Associates (Herzog). Soil samples were collected from the UST removal pit that resulted in concentrations of TPH-D and TPH-G at concentrations of 620 and 730 ppm, respectively.

Herzog returned to the site on July 28, 1986 to over-excavate soils from the UST removal pit. Approximately 5 ½ feet of additional soil was removed from the bottom of the former UST pit. Additional soil samples were collected from the bottom of the excavation pit that resulted in TPH-D at 31 ppm and 10 ppm, and TPH-G at 800 ppm.

In October 1989, Herzog installed three (3) shallow groundwater monitoring wells (MW-4, MW-5, and MW-6) at the locations presented on Plate 2.

During the monitoring well installation, Herzog collected soil and groundwater samples from the monitoring well soil borings. Analysis of the soil and groundwater samples resulted in no detections of compounds analyzed for in monitoring wells MW-4 and MW-5. However, the soil sample from 5.5 ft bgs in MW-6 resulted in 1,700 ppm of TPH-G and 3,200 ppm of TPH-D, and the initial grab groundwater sample collected from MW-6 resulted in 1.3 ppm of TPH-G and 7.4 ppm of TPH-D.

The tank removal and over-excavation, as well as the installation of the monitoring wells, is documented in Herzog Associates' "Report of Underground Tank Investigations" dated January 22, 1990.

Beginning in 1998, George Goobanoff Associates (GGA) performed five (5) groundwater monitoring events of monitoring wells MW-4 and MW-6. The location of MW-5 could not be verified since it appeared to be located beneath a portable classroom building, and therefore was not sampled during these events. Based on the SCEHD letter dated December 18, 2000, groundwater samples have not been collected from monitoring well MW-5 since 1991.

According to Ms. Sharon Richardson, CUSD Maintenance Supervisor, the portable classrooms were placed at their current locations in 1998 (prior to when GGA began

monitoring). The results of the five (5) groundwater monitoring events for monitoring wells MW-4 and MW-6 performed by GGA are as follows:

7	able: Sun	nmary of A	nalytical	Results	- Ground	lwater M	onitoring	(1998-99)	I
Date	Sample ID	TPH-G	TPH-D	В	Т	E	m,p-X	o-X	MTBE
3/3/98	MV4	ND	ND	ND	ND	ND	ND N	ND	ND
5/27/98	MV-4	ND	ND	ND	ND	ND	ND	ND	ND
9/30/98	MW-4	ND	ND	ND	ND	ND	ND 3	ND	ND
12/16/98	MW-4	ND	ND	QZ Q	ND	ND	ND III	ND ND	A ND
5/4/99	MW4	ND	ND	ND	ND	ND	I NO	ND II	THE NO.
3/3/98	MW-6	0.065 mg/L	ND	ND	ND	ND	ND	0.56 μg/L	ND
5/27/98	MW-6	ND	ND	ND	ND	ND	ND	ND	ND
9/30/98	MW-6	ND	ND	ND	ND	ND	ND	ND	ND
12/16/98	MW-6	ND	ND	ND	ND	ND	ND	ND	ND
5/4/99	MW-6	ND	ND	ND	ND	ND	ND	ND	ND

Notes: ND = Not Detected

The above results were submitted to the SCEHD in GGA's report dated August 9, 1999. This report included a recommendation to cease monitoring well sampling and also recommended case closure.

In June 2001, a GGA representative visited the site to determine the status of the monitoring wells. GGA completed a Status Report dated June 29, 2001 that was submitted to the SCEHD. At the time of that report, monitoring well MW-6 was located and accessible, monitoring well MW-4 had been paved over and not located, and monitoring well MW-5 was not located and presumed to be beneath the portable classroom based on older site diagrams.

In response to the SCEHD requirements in numerous letters, GGA prepared the *Response to SCEHD Annual Review and Recommendation for Case Closure* report dated February 6, 2009. This report provided the SCEHD justification that by leaving one monitoring (MW-5, located beneath a semi-permanent portable classroom) in place, shallow groundwater would not be adversely impacted. The SCEHD approved leaving MW-5 in place and to proceed with abandonment of MW-4 and MW-6 (Plate 2) in their letter dated April 29, 2009.

Scope of Work

We will retain the services of a State of California C-57 licensed drilling contractor (Clear Heart Drilling, Inc.) to over drill the 4-inch well casings of monitoring wells MW-4 and MW-6 using 10-inch diameter hollow stem augers. After drilling out the well construction material and removing the well casing, the open boring will be grouted to within 2-feet of grade with a 5% bentonite/cement slurry or bentonite/grout slurry using the tremmie method. The upper 2-feet will be backfilled with bentonite chips, hydrated with potable water to create a surface seal to within 6 inches of the ground surface. The final 6 inches will be completed with asphalt to match the existing surface materials. For each well the PVC well casing and the Christy box will be removed from the site and disposed of by the drilling contractor.

Soil Disposal

The drill cuttings will be drummed in steel 55-gallon DOT drums. At the time of drilling the soil cuttings will be sampled to determine if special disposal is required. Analysis for TPH-G, TPH-D, BTEX, MTBE and 5 LUFT Metals will be used in accordance with EPA testing methods. Samples will be collected in laboratory supplied glass jars, sealed with Teflon lined caps. One (1) soil sample will be collected from each 55-gallon drum after abandonment has been completed. The soil samples will be composited at a maximum ratio of 4:1.

Soil samples will be logged on a chain of custody form, labeled, placed in an ice chest containing frozen blue ice and transported to Analytical Sciences, a California State Certified laboratory in Petaluma, California. An expedited turn around time of 3 days will be requested. Upon receipt of the laboratory report, the appropriate disposal will be determined. The disposal will be documented with a waste manifest and included in our Well Abandonment report.

Report of Well Destruction

Upon completion of the well destruction and soil disposal we will prepare a brief letter report documenting the well destruction which will include a copy of the driller's report, Geotracker status, and waste manifest. A copy of our letter report will be submitted to the SCEHD, NC-RWQCB, the SWRCB-Cleanup Fund, and the owner.

Geotracker Compliance

As a final task for this site, and to gain case closure, all information dating back to 2004 will be submitted to the State Geotracker database.

If you have any questions please call us at 707-528-0810.

Sincerely,

George Goobanoff Associates

David L. Bush Project Geologist

Marc W. Seeley, PG 6824

Senior Geologist

Attachments:

Plate 1:

Site Location Map

Plate 2:

Site Map Including Monitoring Well Locations

Site Health & Safety Plan

CC:

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District

97 School Street, Cloverdale, CA 95425

Ms. Sharon Richardson, Maintenance & Operations Supervisor

Cloverdale Unified School District

97 School Street, Cloverdale, CA 95425

Mr. Luis Rivera (via Geotracker)

NC-RWQCB

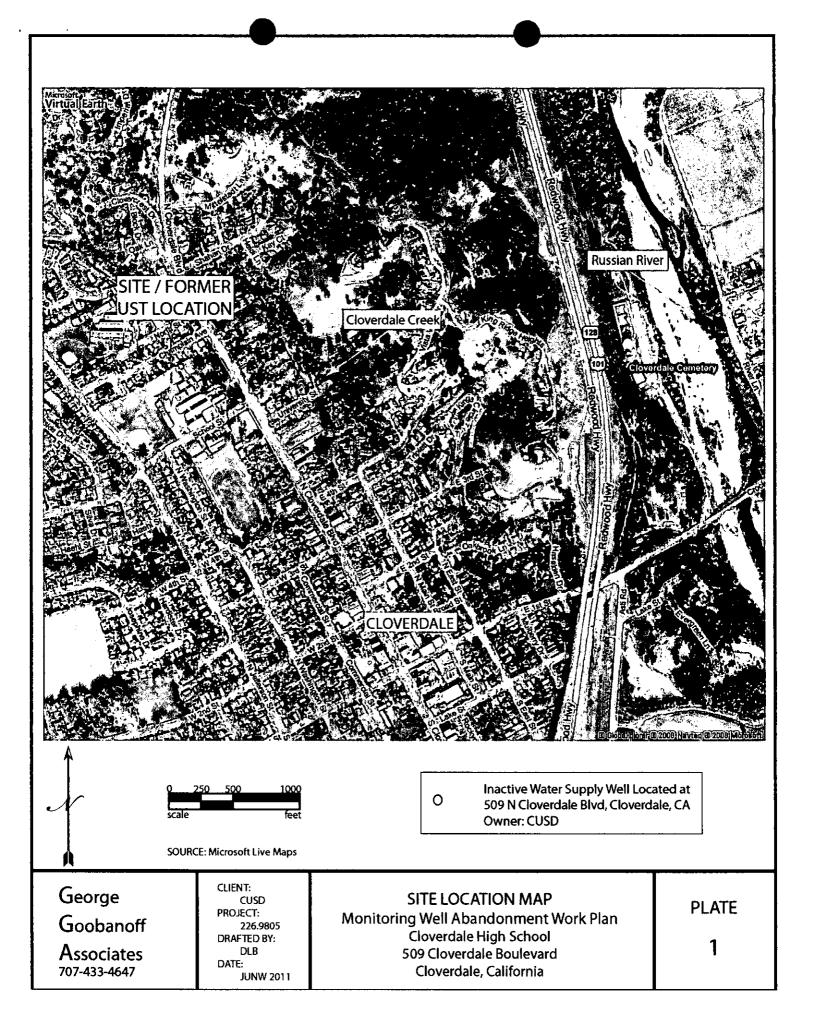
5550 Skylane Blvd., Suite A, Santa Rosa, CA 95403

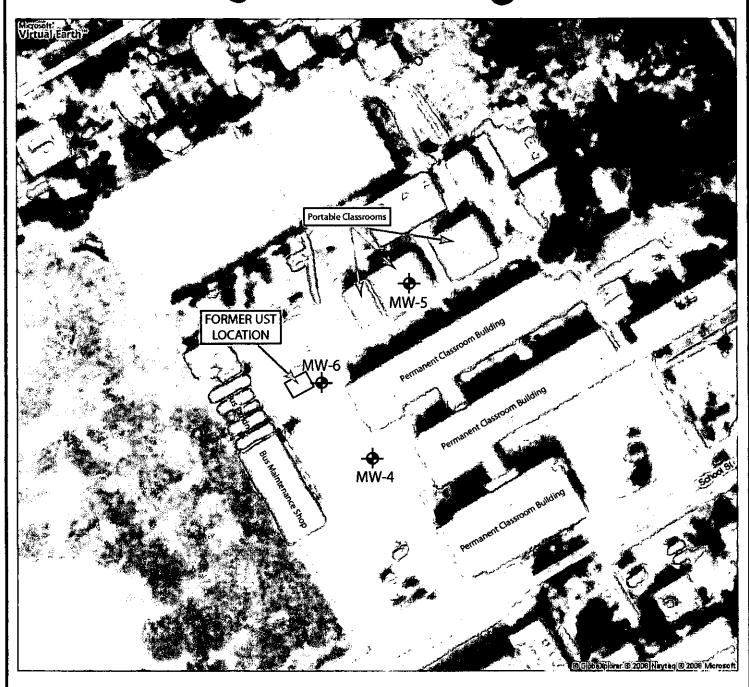
Mr. David Charter (via Geotracker)

SWRCB Cleanup Fund

P.O. Box 944212, Sacramento, CA 94244-2120

GGA File









SOURCE: Microsoft Live Maps

George Goobanoff Associates 707-433-4647 CLIENT:
CUSD
PROJECT:
226.9805
DRAFTED BY:
DLB
DATE:
JUNE 2011

SITE MAP WITH APPROXIMATE MONITORING WELL LOCATIONS onitoring Well Abandonment Work Pla

Monitoring Well Abandonment Work Plan Cloverdale High School 509 Cloverdale Boulevard Cloverdale, California **PLATE**

2

GEORGE GOOBANOFF ASSOCIATES

Environmental Health & Safety Management 218 Burgundy Road Healdsburg, CA 95448 tel/fax 707-433-4647

SITE HEALTH & SAFETY PLAN

for

Monitoring Well Abandonment
For Case Closure - Former UST Site
Cloverdale High School
509 Cloverdale Blvd., Cloverdale, California
SCEHD Site #2426, NC-RWQCB Site #1TSO108

SITE HEALTH & SAFETY PLAN 509 N. Cloverdale Blvd, Cloverdale, CA

GENERAL INFORMATION:

SITE

Cloverdale High School

509 N. Cloverdale Blvd., Cloverdale, California

OWNER: Property Owner:

Cloverdale Unified School District

Location: City/State: 90 School Street Cloverdale, California

Telephone:

707-894-1920

PLAN PREPARED BY:

George Goobanoff Associates, Healdsburg, California

707-433-4647

OBJECTIVES:

To provide a safety plan for the safe completion of

abandonment of two monitoring wells previously installed.

PROPOSED DATE OF

SITE WORK:

Estimated: June 16, 2011

DOCUMENTATION/SUMMARY: Residual / trace concentrations of petroleum hydrocarbons may be present in soils and groundwater; caution is advised. Site work includes abandonment of 2 monitoring wells by

over drilling and grouting.

SITE/WASTE CHARACTERISTICS:

POSSIBLE WASTE TYPES:

Residual / trace concentrations of Gasoline, BTEX, , MTBE

CHARACTERISTICS:

Volatile, Flammable, Toxic, not problematic because of trace

to ND concentrations

FACILITY DESCRIPTION:

Operating High School site

HAZARDOUS EVALUATION:

PARAMETER:

TLV 300 ppm THC

HEALTH:

Ingestion, Inhalation, Absorption, preliminary indicators: odors, dizziness, nausea. Move away to fresh air if odors noted or PID reading above 300 ppm in breathing zone.

SPECIAL PRECAUTIONS

AND COMMENTS

Correct safety procedures must be followed per Health and Safety Plan. Underground utilities should not be a problematic as drilling will be limited to the existing boring locations. Primary concern is student and pedestrian safety.

SITE SAFETY WORK PLAN:

PERIMETER ESTABLISHMENT:

Use barricades and orange traffic cones to secure drilling area and identify work area to nearby pedestrian and vehicle traffic flow as needed.

PERSONAL PROTECTION:

Level of Protection:

EPA Level D

Modifications:

Hard Hats, respirator on site

Surveillance Equipment: PID or OVM

SITE ENTRY PROCEDURES:

Cone necessary traffic away from drilling equipment and Barricades and Caution Tape to keep workers.

pedestrian traffic at safe distance as needed.

DECONTAMINATION

PROCEDURES:

Personnel: Wash with detergent and water

Equipment: Steam clean and drum waste water

FIRST AID:

First aid kit on site

WORK LIMITATIONS:

Utilities will be identified and marked. USA will be notified

a minimum of 48 hours in advance (Clearance #187886).

TEAM COMPOSITION:

George Goobanoff - Principal and Site Safety Officer

Marc Seeley - Seniorl Geologist and Site Safety Officer

David L. Bush - Project Geologist and Site Safety Officer

Drill Rig Operator and Helper. Driller has own H&S Plan

EMERGENCY INFORMATION:

LOCAL RESOURCES:

Ambulance/Hospital

Dial 911

Police/Sheriff/Highway Patrol

Dial 911

Fire Department

Dial 911

SITE RESOURCES:

Fire Extinguisher, First Aid Kit, Telephone and Water.

EMERGENCY CONTACT:

GGA Office

(707) 433-4647

David Bush cell

(707) 953-1020

EMERGENCY ROUTES:

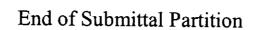
HOSPITAL

- 1) South on Cloverdale Blvd, right on Cherry Creek Road: CLOVERDALE HEALTHCARE CENTER located at 300 Cherry Creek Drive Phone 911
- 2) South on Cloverdale Blvd, South on Highway 101, Exit Dry Creek Road turn left, left on University St, **HEALDSBURGDISTRICT HOSPITAL** located at 1375 University Street Phone 911

FIRE DEPT. - Phone 911

SIGN OFF SHEET

All personnel on site have read and understand the Safety Plan. All personnel will comply with safety procedures:		
NAME (Please Print)	RESPONSIBILITY	SIGNATURE



Date Received_____

Darcy Bering

From:

Darcy Bering

Sent:

Tuesday, March 01, 2011 8:21 AM 'steven.barrow@comcast.net'

To:

Subject:

509 Cloverdale Leaking Underground Storage Tank Site

Attachments:

509 cloverdale 030111.pdf

Mr. Barrow:

Please refer to the attached letter.

Thank you,

Darcy

Darcy M. Bering Senior Environmental Health Specialist Sonoma County **Environmental Health** Local Oversight Program 475 Aviation Blvd., Suite 220 Santa Rosa, CA 95403

Phone: 707-565-6571 Fax: 707-565-6525

LUST SITE ADDRESS: SOS ((socrable)

Public Health Division
Mary Maddux-Gonzalez, MD, MPH
Health Officer & Division Director
Environmental Health & Safety
Walter L. Kruse, REHS, MA
Director of Environmental Health

March 1, 2011

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re:

509 Cloverdale Boulevard North, Cloverdale Leaking Underground Storage Tank Site EHS Site #00002426, NCRWQCB Site #1TSO108, CU Fund #1081

Dear Ms. Rosatti:

On April 29, 2009, this Department sent you a letter that concurred with George Goobanoof Associates (GGA) recommendations to perform a geophysical survey to verify the location of MW-4, and to properly destroy MW-4 and MW-5 at the site. The April 29, 2009 letter is enclosed for your review as it contains additional site requirements.

This Department strongly encourages you to contact the State Water Resources Control Board Cleanup Fund (Fund) regarding the School District Account (Account). Assembly Bill (AB) 2729 (Ruskin) transfers a sum of \$10 million per year in Fiscal Years 2009-10, 2010-11 and 2011-12 from the Fund to the Account to pay for claims filed by school districts in Priority Class D. AB 1188 (Ruskin) expands the eligibility of the Account to add Priority Class B and C school district claims. Please refer to the Fund's website: http://www.waterboards.ca.gov/water_issues/programs/ustcf/schooldistrict_account.shtml

The site has had closure concurrence from the North Coast Regional Water Quality Control Board since 2001. Destruction of the monitoring wells, disposal of waste materials, and the uploading of documents to Geotracker are the last items needed to close this site. It would be in the best interest of your school district to destroy the monitoring wells at the site to obtain final closure while reimbursement is offered from the Fund.

June 1, 2011 has been established as the due date for the implementation of GGA's workplan and submittal of a summary report.

Please call me at (707) 565-6571 should you have any questions.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

enclosure

cc: Mr. Luis Rivera, NCRWQCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, 1695 Willowside Road, Santa Rosa, CA 95401

George Goobanoff & Associates, 218 Burgandy Road, Healdsburg, CA 95448

Ms. Sharon Richardson, Maintenance & Operations Supervisor, Cloverdale Unified

School District, 97 School Street, Cloverdale, CA 95425

Mr. Steve Barrow, President, CUSD Board of Directors (via email:

steven.barrow@comcast.net)

Rita Scardaci, PHN, MPH-Director Ruth Lincoln, PHN, MA - Assistant Director Benita McLarin, MS, MHA - Assistant Director

mental Health Division
Walter L. Kruse - Director

April 29, 2009

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re: "Response to SCEHD Annual Review and Recommendation for Case Closure"
509 Cloverdale Boulevard North, Cloverdale
Leaking Underground Storage Tank Site
SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108

Dear Ms. Rosatti:

On March 9, 2009, this Department received the referenced report dated February 6, 2009 from George Goobanoff Associates (GGA). Additionally, on April 23, 2009, we received a letter response to questions posed to GGA via electronic mail on April 14, 2009. Thank you for these submittals. Our Local Oversight Program staff, which includes a Licensed Civil Engineer, has reviewed the report and subsequent response. This Department generally concurs that it is not feasible at this time to locate and properly abandon monitoring well MW-5 due to its location presumably under portable classroom 23, and that leaving this well will have minimal negative effects on the environment.

As the Regional Water Board has concurred with closing the site, this Department generally concurs with the recommendations to perform a geophysical survey to verify the location of MW-4, and to properly destroy MW-4 and MW-5. Please address the following comments and requirements:

- 1. An approved Application for Drilling Permit is required from this Department prior to implementation of the proposed work. A Site Safety Plan must be submitted prior to drilling permit approval.
- 2. All contaminated or potentially contaminated materials generated from the monitoring well destruction activities must be properly disposed and accounted for. Please retain all shipping documents and receipts of disposal of these materials for submittal to this Department.
- 3. The "Response to SCEHD Annual Review and Recommendation for Case Closure" report and the summary report of the well destruction activities must be

submitted electronically to the State Geotracker database as required by Title 23. Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations. A site map must also be uploaded.

Please call me at (707) 565-6571 should you have any questions.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist Leaking Underground Storage Tank

Local Oversight Program

db

cc:

Mr. Luis Rivera, NCRWQCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, 1695 Willowside Road, Santa Rosa, CA 95401

George Goobanoff & Associates, 218 Burgandy Road, Healdsburg, CA 95448

Ms. Sharon Richardson, Maintenance & Operations Supervisor, Cloverdale

Unified School District, 97 School Street, Cloverdale, CA 95425

Darcy Bering

To:

rosattic@cusd.org

Subject:

509 Cloverdale (Leaking Underground Storage Tank Site)

Hi Claudia.

I tried calling your number today and got a fast busy, so I thought I'd email.

I am the caseworker for the Leaking Underground Storage Tank Site at 509 Cloverdale. I am sure you have received all of our letters over the years. The site has had closure concurrence from the North Coast Regional Water Quality Control Board since 2001. We cannot close the site until the monitoring wells are destroyed at the property. Our last letter dated 2/25/10 discussed the State's Cleanup Fund School District Account. We strongly encourage you, or your consultant, look into the School District Account as I believe it sunsets in fiscal year 2010-2011. Pleae refer to our last letter for specifics.

Can you give me a time frame as to when you think the monitoring wells will be destroyed at the property? Thanks for your time,

Darcy

Darcy M. Bering Senior Environmental Health Specialist Sonoma County DHS-EHD Local Oversight Program 475 Aviation Blvd., Suite 220 Santa Rosa, CA 95403

Phone: 707-565-6571 Fax: 707-565-6525

LUST LETTER DATE:

LUST SITE ADDRESS: SOS COULDE

Rita Scardaci, PHN, MPH – Director Ruth Lincoln, PHN, MA – Assistant Director Benita McLarin, MS, MHA – Assistant Director

Environmental Health Division

Walter L. Kruse - Director

February 25, 2010

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re:

509 Cloverdale Boulevard North, Cloverdale

Leaking Underground Storage Tank Site

SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108, CU Fund #1081

Dear Ms. Rosatti:

On April 29, 2009, this Department sent you a letter that concurred with George Goobanoof Associates (GGA) recommendations to perform a geophysical survey to verify the location of MW-4, and to properly destroy MW-4 and MW-5. Please refer to that letter for additional site requirements.

This Department strongly encourages you to contact the State Water Resources Control Board Cleanup Fund (Fund) regarding the School District Account (Account). Assembly Bill (AB) 2720 (Ruskin) transfers a sum of \$10 million per year in Fiscal Years 2009-10, 2010-11 and 2011-12 from the Fund to the Account to pay for claims filed by school districts in Priority Class D. AB 1188 (Ruskin) expands the eligibility of the Account to add Priority Class B and C school district claims. Please refer to the Fund's website:

http://www.waterboards.ca.gov/water_issues/programs/ustcf/schooldistrict_account.shtml

The site has had closure concurrence from the North Coast Regional Water Quality Control Board since 2001. Destruction of the monitoring wells, disposal of waste materials, and the uploading of documents to Geotracker are the last items needed to close this site. It would be in the best interest of your school district to destroy the monitoring wells at the site to obtain final closure while reimbursement is offered from the Fund.

Please call me at (707) 565-6571 should you have any questions.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank Local Oversight Program

db

cc:

Mr. Luis Rivera, NCRWQCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, 1695 Willowside Road, Santa Rosa, CA 95401

George Goobanoff & Associates, 218 Burgandy Road, Healdsburg, CA 95448

Ms. Sharon Richardson, Maintenance & Operations Supervisor, Cloverdale Unified School

District, 97 School Street, Cloverdale, CA 95425

Darcy Bering

To:

David Bush (david@egsconsultants.com)

Subject:

509 Cloverdale

Attachments:

012610projected_release_schedule.pdf.pdf

Hi David,

I hope all is well with you.

We just got a notice of payments by the Cleanup Fund and the turnaround for reimbursements for school districts is about 1 month. I have attached a copy for your reference. Maybe the Cloverdale School District can tap into the fund to finally get those wells destroyed at 509 Cloverdale.

Let me know what the status of this site is.

Darcy

Darcy M. Bering Senior Environmental Health Specialist Sonoma County DHS-EHD Local Oversight Program 475 Aviation Blvd., Suite 220 Santa Rosa, CA 95403

Phone: 707-565-6571 Fax: 707-565-6525

LUST LETTER DATE:

4:4-09

LUST SITE ADDRESS: 504 ((use > le

Rita Scardaci, PHN, MPH – Director Ruth Lincoln, PHN, MA – Assistant Director Benita McLarin, MS, MHA – Assistant Director

Environmental Health Division

Walter L. Kruse - Director

April 29, 2009

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re: "Response to SCEHD Annual Review and Recommendation for Case Closure"

509 Cloverdale Boulevard North, Cloverdale Leaking Underground Storage Tank Site

SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108

Dear Ms. Rosatti:

On March 9, 2009, this Department received the referenced report dated February 6, 2009 from George Goobanoff Associates (GGA). Additionally, on April 23, 2009, we received a letter response to questions posed to GGA via electronic mail on April 14, 2009. Thank you for these submittals. Our Local Oversight Program staff, which includes a Licensed Civil Engineer, has reviewed the report and subsequent response. This Department generally concurs that it is not feasible at this time to locate and properly abandon monitoring well MW-5 due to its location presumably under portable classroom 23, and that leaving this well will have minimal negative effects on the environment.

As the Regional Water Board has concurred with closing the site, this Department generally concurs with the recommendations to perform a geophysical survey to verify the location of MW-4, and to properly destroy MW-4 and MW-5. Please address the following comments and requirements:

- 1. An approved Application for Drilling Permit is required from this Department prior to implementation of the proposed work. A Site Safety Plan must be submitted prior to drilling permit approval.
- 2. All contaminated or potentially contaminated materials generated from the monitoring well destruction activities must be properly disposed and accounted for. Please retain all shipping documents and receipts of disposal of these materials for submittal to this Department.
- 3. The "Response to SCEHD Annual Review and Recommendation for Case Closure" report and the summary report of the well destruction activities must be

submitted electronically to the State Geotracker database as required by Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations. A site map must also be uploaded.

Please call me at (707) 565-6571 should you have any questions.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

cc: Mr. Luis Rivera, NCRWQCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, 1695 Willowside Road, Santa Rosa, CA 95401

George Goobanoff & Associates, 218 Burgandy Road, Healdsburg, CA 95448

Ms. Sharon Richardson, Maintenance & Operations Supervisor, Cloverdale

Unified School District, 97 School Street, Cloverdale, CA 95425

DEPT. OF HEALTH SVCS

GEORGE GOOBANOFF ASSOCIATES

Environmental Health & Safety Management
218 Burgundy Road
Healdsburg, CA 95448
tel/fax 707-433-4647

APR 2 3 2009

ENVIRONMENTAL HEALTH DIVISION

April 22, 2009 Project No: 226.9805

Ms. Darcy Bering Sonoma County Environmental Health Division 475 Aviation Blvd., Suite 220 Santa Rosa, CA 95403

RE:

RESPONSE TO SCEHD COMMENTS

Cloverdale High School

509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

Dear Ms. Bering:

This letter has been prepared in response to your e-mail correspondence dated April 14, 2009. In that e-mail, the Sonoma County Environmental Health Division (SCEHD) requested additional information prior to transmitting a formal response letter to our report dated February 6, 2009 (Response to SCEHD Annual Review and Recommendation for Case Closure).

The following provides the information requested by the SCEHD:

- 1) According to Sharon Richardson, CUSD Maintenance Supervisor, surface runoff water drains very well in the area of the portable classroom (Plate 2a). Ms. Richardson advised us that she has not observed standing or pooling water in the area of the portable classrooms, and that the area beneath the portable believed to be located over MW-5 is dry.
- 2) The portable classroom that is presumably located over monitoring well MW-5 is designated as Room 23 by Cloverdale High School (Plate 2a).
- 3) Plate 2a attached to this letter presents the current site plan with monitoring well locations.
- 4) The February 6, 2009 report, a site map, and all subsequent reports will be uploaded to the State Geotracker database.
- 5)Groundwater sampling of the on site water supply well will not be required by the SCEHD.

RESPONSE TO SCEHD COMMENTS **Cloverdale High School** 509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

We trust this letter is responsive to the requests made by the SCEHD. If you have any questions regarding this site or this report please feel free to call us at 707-528-0810.

Sincerely,

George Goobanoff Associates

David L. Bush **Project Geologist**

Marc W. Seeley, PG 6824

Senior Geologist

Attachments: Plate 2a:

Site Map with Approximate Monitoring Well Locations

CC:

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District

97 School Street Cloverdale, CA 95425

Ms. Sharon Richardson, Maintenance & Operations Supervisor

Cloverdale Unified School District

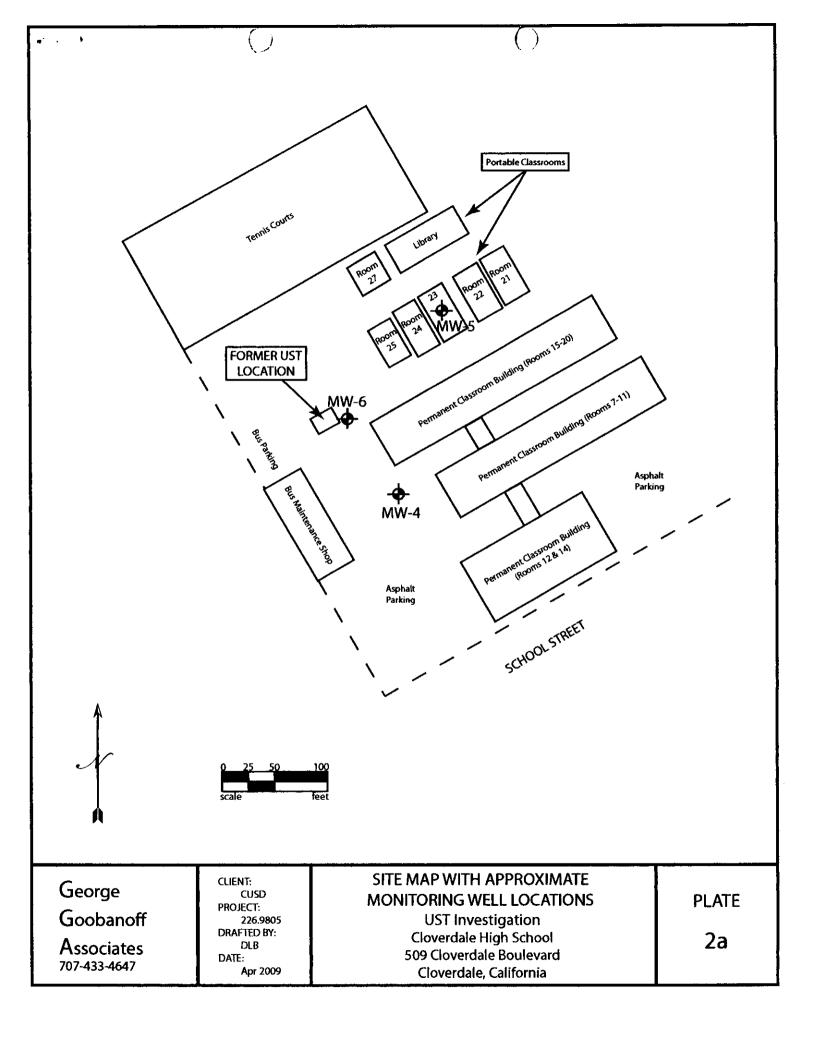
97 School Street Cloverdale, CA 95425

Mr. Luis Rivera NC-RWQCB 5550 Skylane Blvd., Suite A Santa Rosa, CA 95403

Ms. Kim Sellards **UST Enforcement Unit** 1001 I Street, 16th Floor Sacramento, CA 95814

Mr. David Charter SWRCB Cleanup Fund P.O. Box 944212 Sacramento, CA 94244-2120

GGA File



Darcy Bering

From:

Darcy Bering

Sent:

Tuesday, April 14, 2009 12:23 PM

To:

David Bush (david@egsconsultants.com)

Subject:

509 Cloverdale

Hi David.

Our LOP team has reviewed the recently submitted "Response to SCEHD Annual Rview and Recommendation for Case Closure" report. Given the information provided, this Department will forgive the destruction of MW-5. However, we are wondering if you could clarify a few things:

- There is some concern about area drainage. Do you know, or do the school officials know if water pools or sheets under this building?
- Can you provide us with the name of the building over MW-5? We need some way to designate the building in
 question as we are going to advise the building department that if the building ever moves, the well will need to
 be located and properly destoyed.
- It would be helpful for us to have a current site plan showing the building (plate 3 shows the site prior to the building).
- This document and the final well destruction document will be required to be uploaded to Geotracker.
- We do not think the sampling of the water supply well on the school property is necessary as we already have closure concurrence from the NCRWQCB.

I will send out a formal letter once I get your response to the above items. It will be great to finally close this site.

Thanks,

Darcy

Darcy M. Bering Senior Environmental Health Specialist Sonoma County DHS-EHD Local Oversight Program 475 Aviation Blvd., Suite 220 Santa Rosa, CA 95403 Phone: 707-565-6571

Fax: 707-565-6525

FACT SHEET FOR SITE DOCUMENT FILED ELSEWHERE (INCLUDES ROLLED MAPS)

DOCUMENT: The purk to SCEAD Annal Person
DOCUMENT: Response to SCEAD Annal Review
SITE NUMBER: 2426
SITE ADDRESS: 509 Clovedle
DATE DOCUMENT RECEIVED: 3-9-09
LOCATION OF DOCUMENT IF NOT IN ACCORDION FOLDER:

LUST LETTER DATE: G-25-e8

LUST SITE ADDRESS: SO9 Clueb

Rita Scardaci, MPH - Director Ruth Lincoln, PHN, MA - Assistant Director

Environmental Health Division

September 25, 2008

Walter L. Kruse - Director

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re:

Annual Review

509 Cloverdale Boulevard North, Cloverdale Leaking Underground Storage Tank Site SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108

Dear Ms. Rosatti:

This Department is in the process of reviewing sites that have concurrence for closure by the North Coast Regional Water Quality Control Board staff but have not yet been closed due to pending items. Our files show that on June 19, 2001, September 6, 2001, February 11, 2004, April 18, 2006, and March 20, 2007 letters were sent directing that certain tasks be performed prior to closure of the site. Copies of those letters are enclosed for your convenience. As of this date, the pending items have not been resolved.

It is this Department's understanding that exact location of monitoring well (MW-5) has not been determined, but the well is apparently under a portable building at the site. This Department expects that every effort to locate MW-5 be explored. Additional information regarding the location and accessibility to MW-5 was requested in this Department's September 6, 2001 letter and is still required. Should the exact location of MW-5 be determined under the building, this office would consider abandonment of this well by pressure grouting rather than abandonment by over-drilling with a drill rig.

Should MW-5 not be located, or if the well is located and cannot be destroyed by over-drilling or pressure grouting, then an evaluation by an appropriately registered professional as to the risk to the beneficial uses of the groundwater beneath the site by not properly destroying the monitoring well will be required. Please include in the evaluation the construction details of the monitoring well, the location of nearby water supply wells, location of nearby septic systems and sewer lines, the characteristics and use of the aquifer, a cross-section including the characteristics of the lithology penetrated by the well, topographical and surface features, potential safety hazards, and any other information relevant to evaluate the potential negative effects of not appropriately destroying the monitoring well.

Please be advised that Article 5, Section 2652(d) of the California Underground Storage Tank Regulations, Title 23, Division 3, Chapter 16, California Code of Regulations, states, "Until investigation and cleanup are complete, the owner or operator shall submit

reports to the local agency or Regional Water Quality Control Board, whichever is overseeing the cleanup, every three months or more frequently as specified by the agency." You are directed to submit quarterly reports on the condition and maintenance of the existing monitoring wells.

Please note that the following data must be submitted electronically to the State Geotracker database as required by Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations:

- Site map.
- Complete copies of reports and workplans including the signed transmittal letters and professional certifications (PDF format) for all submittals after December 16, 2004.

The long delay in actions necessary for closure of your site could result in the need for additional sampling of the monitoring wells, or additional site requirements.

November 25, 2008 has been established as the due date for completing the pending items, including the required report on the condition of the existing monitoring wells. The Geotracker submittals will be required prior to final closure of the site.

Should you have any questions, please contact me at (707) 565-6571.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

Enclosures

cc: Mr. Luis Rivera, NCRWOCB

Mr. David Charter, SWRCB Cleanup Fund

Ms. Kim Sellards, Chief, UST Enforcement Unit, 1001 I Street, 16th Floor, Sacramento, CA 95814

Mr. Marc Seeley, 1695 Willowside Road, Santa Rosa, CA 95401 (without

enclosures)
George Goobanoff & Associates, 218 Burgandy Road, Healdsburg, CA 95448 (without enclosures)

Ms. Sharon Richardson, Maintenance & Operations Supervisor, Cloverdale Unified School District, 97 School Street, Cloverdale, CA 95425 (without enclosures)

LUST LETTER DATE:

3-20-07

LUST SITE ADDRESS: 504 (Come le

Rita Scardaci, MPH – Director Ruth Lincoln, PHN, MA – Assistant Director

March 20, 2007

Environmental Health Division

Walter L. Kruse - Director

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re: Annual Review

509 Cloverdale Boulevard North, Cloverdale Leaking Underground Storage Tank Site SCDHS-EHD Site #00002426, NCRWQCB Site # 1TSO108

Dear Ms. Rosatti:

This Department is in the process of reviewing sites that have concurrence for closure by the North Coast Regional Water Quality Control Board but have not yet been closed due to pending items. Our files show that on June 19, 2001, September 6, 2001, February 11, 2004, and April 18, 2006 letters were sent directing that certain tasks be performed prior to closure of the site. Copies of those letters are enclosed for your convenience. As of this date, the pending items have not been resolved.

It is this Department's understanding that exact location of monitoring well (MW-5) has not been determined, but the well is apparently under a portable building at the site. This Department expects that every effort to locate MW-5 be explored. Additional information regarding the location and accessibility to MW-5 was requested in this Department's September 6, 2001 letter and is still required. Should the exact location of MW-5 be determined under the building, this office would consider abandonment of this well by pressure grouting rather than abandonment by over-drilling with a drill rig.

Should MW-5 not be located, or if the well is located and cannot be destroyed by over-drilling or pressure grouting, then an evaluation by an appropriately registered professional as to the risk to the beneficial uses of the groundwater beneath the site by not properly destroying the monitoring well will be required. Please include in the evaluation the construction details of the monitoring well, the location of nearby water supply wells, location of nearby septic systems and sewer lines, the characteristics and use of the aquifer, a cross-section including the characteristics of the lithology penetrated by the well, topographical and surface features, potential safety hazards, and any other information relevant to evaluate the potential negative effects of not appropriately destroying the monitoring well.

Please be advised that Article 5, Section 2652(d) of the California Underground Storage Tank Regulations, Title 23, Division 3, Chapter 16, California Code of Regulations, states, "Until investigation and cleanup are complete, the owner or operator shall submit reports to the local agency or Regional Water Quality Control Board, whichever is overseeing the cleanup, every three months or more frequently as specified by the agency."

Unfortunately, due to the length of time that has elapsed, there is now a permit fee required for the destruction of monitoring wells. Additionally, an annual fee for Geotracker Maintenance will be initiated in 2007. Please note that the following data must be submitted electronically to the State Geotracker database as required by Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations:

- Site map.
- Complete copies of reports and workplans including the signed transmittal letters and professional certifications (PDF format) for all submittals after December 16, 2004.

The long delay in actions necessary for closure of your site could result in the need for additional sampling of the monitoring wells, or additional site requirements.

May 20, 2007 has been established as the due date for completing the pending items. The Geotracker submittals will be required prior to final closure of the site.

Should you have any questions, please contact me at (707) 565-6571.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

Enclosures

cc:

Mr. Luis Rivera, NCRWOCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, 1695 Willowside Road, Santa Rosa, CA 95401 (without enclosures) George Goobanoff & Associates, 218 Burgandy Road, Healdsburg, CA 95448 (without enclosures)

Ms. Sharon Richardson, Maintenance & Operations Supervisor, Cloverdale Unified School District, 97 School Street, Cloverdale, CA 95425 (without enclosures)

LUST LETTER DATE: (- 8-06

LUST SITE ADDRESS:

Rita Scardaci, MPH – Director Ruth Lincoln, PHN, MA – Assistant Director

Environmental Health Division

Walter L. Kruse - Director

April 18, 2006

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re:

509 Cloverdale Boulevard North, Cloverdale Leaking Underground Storage Tank Site SCDHS-EHD Site #00002426, NCRWQCB Site # 1TSO108

Dear Ms. Rosatti:

This Department is in the process of reviewing sites that have concurrence for closure by the North Coast Regional Water Quality Control Board but have not yet been closed due to pending items. Our files show that on June 19, 2001, September 6, 2001, and February 11, 2004 you were sent letters directing that certain tasks be performed prior to closure of the site. Copies of those letters are enclosed for your convenience. As of this date, the pending items have not been resolved.

It is this Department's understanding that exact location of monitoring well (MW-5) has not been determined, but the well is apparently under a portable building at the site. This Department expects that every effort to locate MW-5 be explored. Additional information regarding the location and accessibility to MW-5 was requested in this Department's September 6, 2001 and is still required. Should the exact location of MW-5 be determined under the building, this office would consider abandonment of this well by pressure grouting rather than abandonment by over-drilling with a drill rig.

Should MW-5 not be located, or if the well is located and cannot be destroyed by over-drilling or pressure grouting, then an evaluation by an appropriately registered professional as to the risk to the beneficial uses of the groundwater beneath the site by not properly destroying the monitoring well will be required. Please include in the evaluation the construction details of the monitoring well, the location of nearby water supply wells, location of nearby septic systems and sewer lines, the characteristics and use of the aquifer, a cross-section including the characteristics of the lithology penetrated by the well, topographical and surface features, and any other information relevant to evaluate the potential negative effects of not appropriately destroying the monitoring well.

Please note that the Petroleum Underground Storage Tank Cleanup Fund Law, Health and Safety Code Sections 25299.37 and 25299.76 requires that reports be submitted every three months or as specified by the agency overseeing the agency. The long delay in actions necessary for closure of your site could result in the need for additional sampling of the monitoring wells, or additional site requirements.

Unfortunately, due to the length of time that has elapsed, there is now a permit fee required for the destruction of monitoring wells. Additionally, an annual fee for Geotracker Maintenance will be initiated in 2007. Please note that the following data must be submitted electronically to the State Geotracker database as required by Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations:

- Site map.
- Complete copies of reports and workplans including the signed transmittal letters and professional certifications (PDF format) for all submittals after December 16, 2004.

June 15, 2006 has been established as the due date for completing the pending items. The Geotracker submittals will be required prior to final closure of the site.

Should you have any questions, please do not hesitate to contact me at (707) 565-6571.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

Enclosures

cc: Mr. Luis Rivera, NCRWOCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, 1695 Willowside Road, Santa Rosa, CA 95401

George Goobanoff & Associates, 218 Burgandy Road, Healdsburg, CA 95448

Ms. Susan Richardson, Maintenance & Operations Supervisor, Cloverdale

Unified School District, 97 School Street, Cloverdale, CA 95425

From:

Constance Stavros

To:

Bering, Darcy

Date: Subject: 4/29/04 9:21AM Re: well permit

Hey Darcy - you never bug me!

Ok, the well permit in question was for the destruction of a hand dug, stone-lined well that was approxiamtely 4' diameter and 15' deep. The well was pumped of water, and was then filled with cement to surface.

Hope that helps!

Connie

>>> Darcy Bering 04/28/04 12:19PM >>> Hi Connie

Sorry to bug you yet again. I wonder if you could check on a well permit.... WEL02-0354.

It is right next to a site we have. Wondering what was done out there???? new well, well destruct, geotech? thanks a ton

Darcy

509 clovesle

Darcy Bering - 509 Cloverdale



From:

Darcy Bering

To:

ggaenvironmental@hotmail.com

Date: Subject:

4/28/2004 2:26 PM 509 Cloverdale

Hi Greg

As per our discussion today, we would expect the issues outlined in the 9/01 and 12/01 letters be addressed. As far as the MW with the building over it, here is what we would ask of your registered professional:

Provide an evaluation by an appropriately registered professional as to the risk to the beneficial uses of the groundwater beneath the site by not locating and properly destroying the monitoring well. Please include in the evaluation the construction details of the monitoring well, the location of nearby water supply wells, location of nearby septic systems and sewer lines, the characteristics and use of the aquifer, a cross-section including the characteristics of the lithology penetrated by the well, topographical and surface features, and any other information relevant to evaluate the potential negative effects of not appropriately destroying the monitoring well.

I will advise you on the PRMD permit question when I hear from them. Hope this helps.

Darcy Bering 707-565-6571

Facsimile

To:	Shorm Richarson 894 1922 509 Chardle Lust Site
Fax #:	894 1922
Re:	500 caudle Lust site
Date:	2/20/104
Pages:	Z(includes this cover sheet).
	Hi. Sharon -
	The June 19, 2001 letter.
	per your reguest
	The has
	From the desk of

Darcy Bering (707) 565-6571 Registered Environmental Health Specialist

> Sonoma County Department of Health Services Environmental Health Division 3273 Airway Drive, Suite D Santa Rosa, CA 95403-2097

> > (707) 565-6565 Fax: (707) 565-6525

LUST LETTER DATE: 2-11-04

LUST SITE ADDRESS: 4

509 Cloverdale Blud 1



February 11, 2004

Environmental Health Division

Jonathan J. Krug - Director

Ms. Claudia Fransen, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

FILE COPY

Re:

509 Cloverdale Boulevard North, Cloverdale - Leaking Underground Storage Tank Site

SCDHS-EHD Site #00002426, NCRWQCB Site # 1TSO108

Pending Site Closure

Dear Ms. Fransen:

This Department is in the process of reviewing sites that have concurrence for closure by the North Coast Regional Water Quality Control Board but have not yet been closed due to pending actions directed by this Department. Our files show that on September 6, 2001 and December 14, 2001, you were sent directives to perform certain tasks prior to closure of the site. Copies of those letters are enclosed for your convenience. To date, this Department has not received any notification of their implementation.

Please note that the Petroleum Underground Storage Tank Cleanup Fund Law, Health and Safety Code Sections 25299.37 and 25299.76 requires that reports be submitted every three months or as specified by the agency overseeing the agency. Long periods of delay in closure may cause the need for additional sampling of the monitoring wells.

April 15, 2004 has been established as the due date for the submittal of a report on the current status of the monitoring wells and pending items as identified in the enclosed letters.

Should you have any questions, please call Darcy Bering, the current caseworker for this site, at (707) 565-6571.

Thank you for your attention to this matter.

Sincerely.

Peggy P. Carr

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

Enclosure

c: Mr. Luis Rivera NCRWCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, George Goobanoff & Associates, 1695 Willowside Road, Santa Rosa, CA

95401

George Goobanoff & Associates, 218 Burgandy Road, Healdsburg, CA 95448

FILE COPY



December 14, 2001

Environmental Health Division

Jonathan J. Krug - Director

Mr. John Wight - Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re:

509 North Cloverdale Boulevard, Cloverdale

Leaking Underground Storage Tank Site

SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108

Dear Mr. Wight:

As you may be aware, the referenced site is in this Department's Leaking Underground Storage Tank Program. The site has recently received concurrence for site closure from the North Coast Regional Water Quality Control Board and final closure is pending the destruction of the three on-site monitoring wells. However, this Department has received information that there may be a water supply well located at 509 Cloverdale Boulevard North. This water supply well was reported in a sensitive receptor survey for a nearby leaking underground storage tank site. Please note that a letter dated October 27, 1997 from Mike Carey, the former Superintendent, states that a sensitive receptor survey was performed and that no water supply wells were found within 1000 feet of 509 Cloverdale Boulevard North.

A determination must be made as to whether or not there is a water supply well at 509 Cloverdale Boulevard North. If there is a water supply well, please provide this Department a site map indicating the well location in relation to the former underground storage tank. Provide any information regarding the well, including, well depth, well seal, what the well serves, and if the well is active or inactive.

This Department requires this determination regarding a possible water supply well prior to closure of your site. Thank you for your cooperation in investigating this site. Should you have any questions, please contact me at (707) 565-6571.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

cc:

Mr. Luis Rivera, NCRWQCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, George Goobanoff & Associates, 1695 Willowside Road, Santa Rosa,

CA 95401

George Goobanoff & Associates, 218 Burgundy Road, Healdsburg, CA 95448

One water supply well that we understand has not been in use for several years is located at 509 North Cloverdale Boulevard (Cloverdale High School) (greater than 1,000 feet from the subject site). Within the study area, no additional domestic wells or monitoring wells were identified during the door-to-door survey and records search. The location of the domestic well identified during the survey is shown on Plate SSRS, attached.

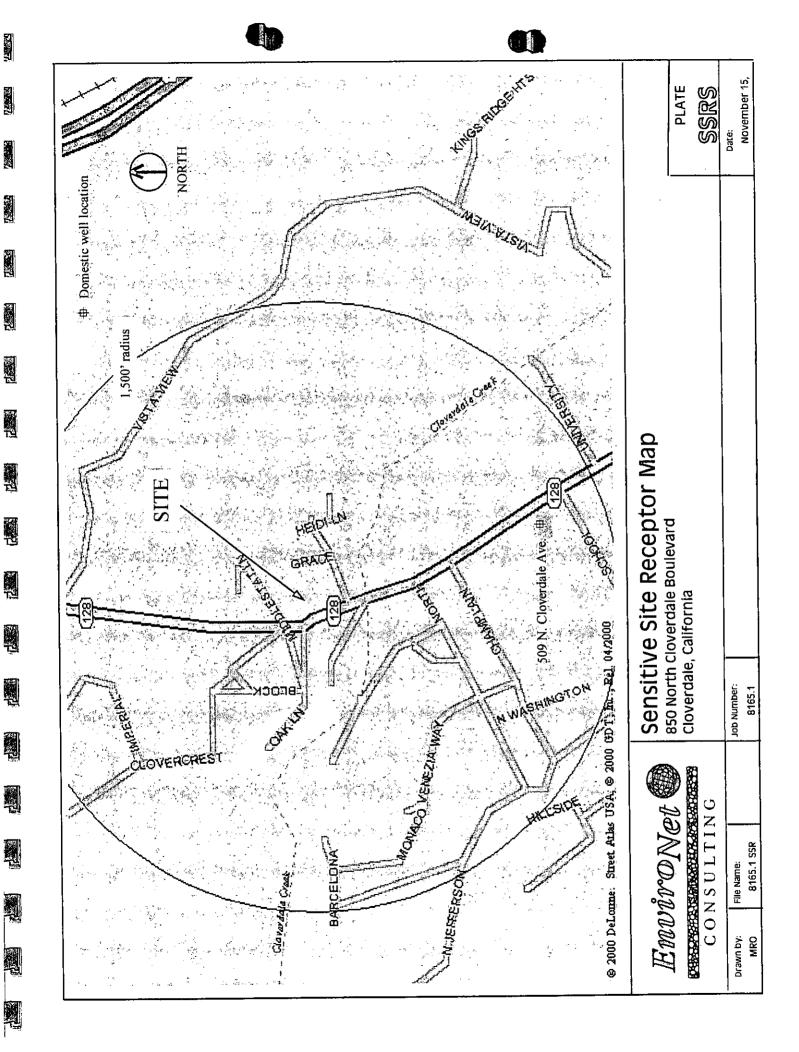
Proposed Subsurface Investigation - Borings

This proposed investigation is designed to further investigate the extent of petroleum hydrocarbons in soil and groundwater, to provide monitoring points to determine groundwater flow direction and gradient, and to monitor groundwater quality over time.

EnviroNet Consulting (EnviroNet) proposes to drill ten borings at the locations shown on Plate 2. Each of the borings will be evaluated for subjective evidence of soil or groundwater contamination by using visual discoloration, odor, and photoionization detector readings. Grab groundwater samples will be collected from each of the borings drilled:

The borings will be drilled using approximately 4" diameter solid stem or 7" diameter hollow stem augers. Soil samples will be collected at a depth of 5 feet in each boring for lithologic evaluation. Soil samples will then be continuously collected from 10 to 20 feet bgs which is contiguous with the significantly impacted soil observed in the initial five borings. Samples will also be collected and evaluated every 5 feet below this interval to the bottom of each boring. The deepest sample from each boring is proposed to be collected from below the first identified free groundwater to determine if smearing of petroleum hydrocarbons on the soil has occurred due to changes in the groundwater level. Based on prior results, first groundwater is anticipated at approximately 20 feet bgs.

Soil samples will be collected using a California-modified split-barrel sampler or standard pin sampler. The typical sampler holds three metal soil sample tubes and is pounded into the soil ahead of the augers. Following driving the sample, the sampler is withdrawn and the sample tubes are removed. The sample tube ends selected for analysis are covered with aluminum foil or teflon sheets and sealed with plastic caps. The soil sample tubes are then labeled and placed under refrigerated conditions until they are transported to a California Department of Health Services certified analytical laboratory for analysis. A minimum of four soil samples will be submitted for analysis from each boring. Based on past results, the sample from 25 feet bgs will also be analyzed from the borings, for a maximum of five soil samples collected and analyzed from each boring. A geologist will observe the soil borings and record the lithology and other pertinent information: The lithologic descriptions will be made according to the Unified Soils Classification System.



LUST LETTER DATE:	9/6/01	
LUST SITE ADDRESS:	509 Clove Ide.	

v

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Environmental Health Division

Jonathan J. Krug - Director

September 6, 2001

Mr. Mike Carey, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re: "Status Report - Site Observation to Locate Monitoring Wells to be Abandoned"

509 North Cloverdale Boulevard, Cloverdale Leaking Underground Storage Tank Site

SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108

Dear Mr. Carey:

On August 14, 2001 this Department received the referenced status report from George Goobanoff & Associates dated August 10, 2001. The Local Oversight Program (LOP) Team has reviewed the report and has determined that additional information is needed prior to this Departments dismissal of abandoning MW-5 due to the location of a portable building apparently over this monitoring well. Please address the following:

- 1. Provide construction details for MW-5. Please include the total depth of the well, the screened interval, and well casing diameter.
- 2. Can access be obtained to the crawl space for a visual inspection? Are floor panels or side panels removable to gain access to the crawl space?
- 3. If access is gained to the crawl space and the monitoring well cannot be located by a visual inspection, explore the possibility of a geophysical survey under the portable building to locate the well.

This Department expects that every effort to locate MW-5 be explored. Should MW-5 be located under the portable building, this office would consider abandonment of this well by pressure grouting rather than abandonment by over-drilling with a drill rig.

This Department concurs with your consultant's recommendation that a geophysical exploration be conducted to locate MW-4 under the pavement. However, this exploration should be coordinated with a survey for MW-5, if necessary.

Thank you for your cooperation in investigating this site. Should you have any questions, please contact me at (707) 565-6571.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

cc:

Mr. Luis Rivera, NCRWQCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, George Goobanoff & Associates, 1695 Willowside Road, Santa

Rosa, CA 95401

GEORGE GOOBANOFF & ASSOCIATES

Environmental Health & Safety Management 218 Burgundy Road, Healdsburg, CA 95448 tel/fax 707-433-4647 PERATT SERVICES

AUG 1 4 2001

ENVIRONMENTAL

August 10, 2001 Project # 9805.226

Ms. Darcy Bering Sonoma County Environmental Health Division 1030 Airway Drive, Suite D Santa Rosa, CA 95403-2067

RE:

STATUS REPORT: Site Observation to Locate Monitoring Wells to be Abandoned Cloverdale High School 509 N. Cloverdale Blvd., Cloverdale, California SCDHS-EHD Site # 00002426//NCRWOCB Site #1TSO108

Dear Ms. Bering:

This letter describes our site meeting and observations to locate monitoring wells at the referenced site (Plate 1). As referenced in your June 19, 2001 letter, a Remedial Action Completion Certification cannot be issued for this site due to existing monitoring wells yet to be abandoned.

On June 28, 2001, David Bush, George Goobanoff's contracted Field Technician, traveled to the site, and met with Sharon Richardson from Cloverdale Schools, to determine the number of monitoring wells, their locations, and accessibility. Site observations resulted in the following findings and recommendations.

Number of Monitoring Wells

Three monitoring wells were delineated on the site plan from previous investigations and sampling events. These are monitoring wells MW-4, MW-5, and MW-6 (Plate 1). A site walk-over was conducted to determine if the monitoring wells are accessible, and if a fourth monitoring well exists. A radius of approximately 200 feet from the removed tank location was investigated. No further monitoring wells were located.

Monitoring Well Locations and Accessibility

<u>MW-6</u>: Monitoring well MW-6 is located approximately 10 feet east of the former tank location (Plate 1). This monitoring well is accessible for abandonment with a drill rig, as it is located in an asphalt parking area.

MW-4: Monitoring well MW-4 is located approximately 95 feet south of the former tank location

Status Report: Monitoring Well Abandonment

Cloverdale High School

SCDHS-EHD Site # 00002426; NCRWQCB Site # 1TSO108

(Plate 1). The accessibility to this well poses a problem as the monitoring well was paved over approximately one year ago. This problem impeded our ability to verify the exact location of this well. In order for this monitoring well to be abandoned, a geophysical survey must be conducted to determine the exact location of the monitoring well. If the well can be successfully located, then a drill rig can position directly over the area of the well so that it can be abandoned.

<u>MW-5</u>: According to the site plan, monitoring well MW-5 is located approximately 120 feet northeast from the former tank location, and 55 feet north of the building (Plate 1). However, monitoring well MW-5 is situated directly underneath a portable classroom. The portable classroom is semi-permanent, and we were not able to gain access underneath, via a crawl space, to verify monitoring well MW-5's existence.

Recommendations

Monitoring well MW-6 can be abandoned at any time due to its' accessibility. We recommend that a geophysical exploration be conducted to determine the actual location of monitoring well MW-4. If the exploration is successful, then we can proceed with its' abandonment, in conjunction with the abandonment of monitoring well MW-6. Monitoring well MW-5 however is more difficult. It would be very cost-ineffective to remove the portable classroom to determine if the monitoring well exists, and was able to be abandoned, and then replace the portable classroom. Therefore, we recommend that the County dismiss the necessity to abandon monitoring well MW-5, and proceed with the abandonment of monitoring wells MW-4 and MW-6, assuming we find MW-4 through the geophysical exploration survey. After abandonment of monitoring wells MW-4 and MW-6 is completed we ask that this case be referred for closure with the County.

Thank you for your consideration of this matter, and we look forward to your response. If you have any further questions, please do not hesitate to call us.

Sincerely,

George Goobanoff & Associates

Marc W. Seeley, RG Project Geologist

Attachments:

Plate 1 - Site Location Map and Site Plan with Monitoring Well

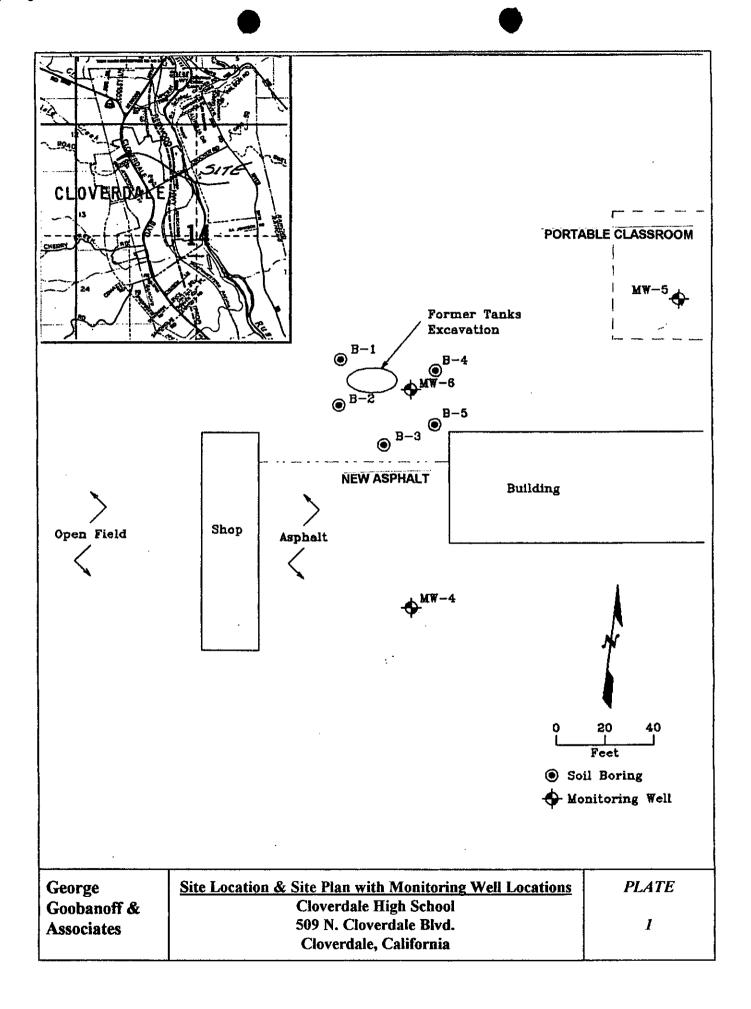
Locations

cc:

Mr. John White

Cloverdale Unified School District

97 School Street





Mark A Kostielney - D

June 19, 2001

Environmental Health Division

Mr. Mike Carey, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re:

509 North Cloverdale Boulevard, Cloverdale

Leaking Underground Storage Tank Site

SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108

Dear Mr. Carey:

This Department has reviewed the referenced site file and pertinent documents as part of the site closure process. Site closure has been recommended to the Regional Water Board and the Board has concurred with closing the site. However, a Remedial Action Completion Certification cannot be issued at this time for the reason noted below.

Pending Item:

1. The monitoring wells have not been properly destroyed under permit from this Department. Please arrange, or have your consultant arrange, for an appropriately licensed Well Driller Contractor to submit a Monitoring Well Application. An appropriate procedure to properly abandon any monitoring wells must also be submitted by the well driller or your consultant.

Should you have any questions, please do not hesitate to contact me at (707) 565-6571.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

cc:

Mr. Luis Rivera, NCRWQCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, George Goobanoff Associates, 1695 Willowside Road,

Santa Rosa, CA 95401

JA

DEPARTMENT OF HEALTH SERVICES

APR 0 5 2001

County of Sonoma Department of Health Services Attn: John Anderson 1030 Center Dr., Ste A Santa Rosa, Ca 95403-2067

Date: March 30, 2001

Re: 509 Cloverdale Blvd. N., Cloverdale

SCDHS-EHD Site # 00002426, NCRWQCB Site # 1TS0108

Request for closure.

Dear Mr. Anderson:

As you had requested, we finally received a clearer copy of the manifest from Maximum Oil Service. Please see attached. If you have any questions or require further information please call me at (707) 433-4647 or my cell phone (707) 799-7712.

Thank you for your assistance in this matter

Sincerely

George Goobanoff, R.E.A., C.E.M.

Enclosures

Cc: Superintendent Cloverdale Unified School District

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George Goobanoff R.E.A./C.E.M.

218 Burgundy Road Healdsburg, CA 99448 Environmental Health & Safety Managament

1030 Cremen On. STE. A Court of Senons SANTA ROSA SA 96403-2067

ATTO! CORROC!

George Goobanoff Associates

Environmental Health & Safety Management 218 Burgundy Rd, Healdsburg, CA 95448

February 23, 2001

County of Sonoma
Department of Environmental Health
Attn: John Anderson
CC: Darcy Bering
1030 Center Drive, Suite A
Santa Rosa, CA 95403-2067

DEPARTMENT OF HEALTH SERVICES

FEB 2 8 2001

ENVIRONMENTAL HEALTH DIVISION

Re:

SCDHS-EHD Site #00002426: NCRWQCB Site #1TS0108 Cloverdale High School, 509 N. Cloverdale Blvd.

Cloverdale, CA 95425

Dear Mr. Anderson:

The purpose of this letter is to present the documentation regarding the disposal of the soil and water that were generated as part of the past site investigation. It is also in simultaneous response to a letter from Darcy Bering to Mr. Carey, the superintendent for Cloverdale Unified School District, regarding an annual review of this site file. With the removal of the water and soil from the site, we feel that the issues raised by your department before considering site closure have all been resolved. In specific response to the 3 points made by Darcy Bering in her letter dated December 18, 2000:

- 1. The wells have been inspected monthly by school district personnel, as well as GGA employees, when onsite visits occurred. There have been no cases of vandalism reported, the well head structures are intact, and the locking caps in place.
- 2. The wells have not been sampled since May of 1999. At that point, there had been 4 continuous quarters of sampling with no detection of any contaminants, including BTEX and MTBE. Monitoring well #5 had not been sampled since 1991 because the preliminary results came back non-detect, and the well was located up-gradient from the original source. For these reasons, the well was not sampled quarterly along with MW #4 and MW #6 by GGA starting in March of 1998. In a letter dated August 9, 1999, GGA requested that the case be referred for closure. In a return letter from your department, 2 issues were raised. One was in regards to the Record Fee Title Owner of the site. The other dealt with the removal of the remaining soil and water from the site. There was no mention of MW #5 in any correspondence since the negotiation to sample from wells #4 and

#6 prior to March 1998. From the past results from 1991, and the location of well #5, we feel there is no reason that this well should be resampled at this time.

3. The documentation you requested regarding the disposal of the soil and water from the site are attached. Under the supervision of George Goobanoff Associates, the water was removed from the site by Maximum Oil Service on 12/4/2000, and the soil along with the drums themselves were removed by Cross Trucking on 12/6/2000.

Based on the previous expectations from your department, and the preceding information provided, we recommend that the case now be referred to the NCRWQCB for site closure.

If you have any questions or need any additional information, please feel free to contact me at (707) 433-4647 (pager (707) 491-1924).

George Goobanoff Associates

George Goobanoff, R.E.A., C.E.M., C.E.I.

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Forestville, CA 95436

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TO CB:374 Max n Oil Service

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Send Payment to: Maximum Oil Service 164 Robles Dr. #207 Valiejo, CA 94591 1(888) 700-4629 Fax (707) 848-2804

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1(888) 700-4629 Fax (707) 848-2804 EPA ID #CAL000188887 DTSC# 3670 CA 152513 NAME BILL TO CUSTOMER EPA Coverdale High School Colo Cross Trudering MAD98701324 ADDRESS BUK 397 CITY STATE ZIP BOLL ROR LUT P.O. # forestuille Ca 95436 CHECK & PHONE 823-4947 707-894-1920 TERMS: NET 15 DAYS: A1.5% late payment will be added to all balances not paid within 30 days of treats PAY FROM THIS INVOICE service information MANIFEST # GALLONS RATE AMOUNT 52 Oh, Non-RCRA Hazardous Waste, Liquid **CA 221** 20167433 **CA 223** 公司: 3 Oil, Non-RCRA Hazardous Weste, Liquid 245 **CA 134** Antifreeze, Non-RCRA Hezerdous Waste, Liquis nottencer: ZP88\$ □ Fail Areston O.A.C. Everyment On Are.

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Mark A. Kostielney - Director

December 18, 2000

## Environmental Health Division

Jonathan J. Krug - Director

Mr. Mike Carey, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re:

Annual Review

509 North Cloverdale Boulevard, Cloverdale Leaking Underground Storage Tank Site

SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108

Dear Mr. Carey:

This Department recently conducted an annual review of the site file. It appears that you were sent a letter on December 15, 1999 regarding two issues that needed to be resolved prior to site closure. This office did receive a response from you regarding the Record Fee Title Owner of the site, thank you for that information. Unfortunately, as of this date, we have not received a response regarding disposal documentation of soil and water waste materials generated from the site investigation. Due to the length of time that has occurred and as a result of the file review, the following items must be addressed to properly evaluate the site for closure:

- 1. There is a concern that the monitoring wells have not been inspected or sampled since the last monitoring event in May 1999. The wells provide a direct conduit to the groundwater and are subject to vandalization and surface water infiltration. Monitoring wells should be inspected at least quarterly to insure their condition and that they have locking caps to prevent vandalism.
- 2. The MW-4 and MW-6 were last sampled on May 4, 1999. Apparently, MW-5 has not been sampled since 1991. Groundwater samples from all three monitoring wells must be analyzed for TPH as gasoline, TPH as diesel, BTEX, petroleum oxygenates and lead scavengers. The petroleum oxygenates and lead scavengers must be analyzed using EPA Method 8260 or equivalent.
- Please provide documentation regarding the disposal of soil and water waste materials generated as part of the site investigation. These materials must be properly disposed and accounted for prior to closure of the site. All receipts of disposal and an account of the materials disposed must be submitted for review.

FROM: ENVIRONMENTAL GEOLOGY SERVICES FAX NO.: 707-528-1956

Recommendation of the site to the North Coast Regional Water Quality Control Board for closure will be based on the evaluation of the requested information.

Thank you for your cooperation in investigating this site. Should you have any questions, please contact me at (707) 565-6571.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

cc:

Mr. Luis Rivera, NCRWQCB

Mr. Mike Mosbacher, SWRCB Cleanup Fund

Mr. Marc Sceley, George Goobanoff Associates, 1695 Willowside Road, Santa

Rosa, CA 95401

LUST LETTER DATE:	12-18-0
LUST SITE ADDRESS:	SDG Claudele 31/2

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December 18, 2000

#### Environmental Health Division

Jonathan J. Krug - Director

Mr. Mike Carey, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

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SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108

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Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

cc: Mr. Luis Rivera, NCRWQCB

Mr. Mike Mosbacher, SWRCB Cleanup Fund

Mr. Marc Seeley, George Goobanoff Associates, 1695 Willowside Road, Santa

Rosa, CA 95401

LUST LETTER DATE:

12/15/99 509 Cloverdele **LUST SITE ADDRESS:** 

#### Environmental Health Division

Jonathan J. Krug - Director

December 15, 1999

Mr. Mike Carey, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re: 509 Cloverdale Blvd. N., Cloverdale

Leaking Underground Storage Tank Site

SCDHS-EHD Site # 00002426, NCRWQCB Site # 1TSO108

Review of Closure Request (George Goobanoff Associates, August 9, 1999)

Dear Mr. Carey:

This Department has reviewed the referenced submittal which was received on August 13, 1999. The case file has also been reviewed and the site closure process has begun. Two issues must be resolved prior to this Department proceeding, however.

The first has to do with our lack of information regarding soil and water waste materials generated from excavation of the former tanks and the monitoring well drilling and sampling operations. Reports on file state that these materials have been placed in drums and have been stored on the site. These materials must be properly disposed and accounted for prior to site closure. Please check with your consultant to see that any drums or soil stockpiles relating to this investigation and cleanup are removed from the site and properly disposed. All receipts of disposal and an account of the materials disposed must be submitted for review.

The second outstanding issue relates to new legislative requirements pertaining to cleanup and closure of sites where an unauthorized release of hazardous substance, including petroleum, has occurred from an underground storage tank (UST). Section 25297.15 (a) of Chapter 6.7 of the Health & Safety Code requires that the responsible party for the release notify all current site record owners of fee title of a regulatory agency's intention to issue a closure letter.

Section 25297.15 (b) requires the regulatory agency to take all reasonable steps to accommodate the participation of responsible landowners in the site closure process, and to consider their input and recommendations.

For purposes of implementing these sections, you have been identified as the agent for the primary responsible party. Please provide to this agency, within twenty calendar days of receipt of this notice, a complete mailing list of all current record owners of fee title. You may use the enclosed Certified List of Record Fee Title Owners Form to comply with this requirement. If the

Mr. Mike Carey December 15, 1999 Page 2

list of current record owners of fee title changes, you must notify this agency of the change within 20 calendar days from when you are notified of the change.

In accordance with Section 25297.15 (a) of Chapter 6.7 of the Health & Safety Code, you must certify to this agency that all current record owners of fee title for the site have been informed of the proposed action before this agency may consider a site closure proposal or issue a closure letter. You may use the enclosed Certification Form of Notification to Record Fee Title Owners of Proposed Action to comply with this requirement.

When all requirements noted above have been fulfilled, this Department will formally recommend the site to the North Coast Regional Water Quality Control Board for closure. The Regional Board has the option to support or deny closure within 30 days of the recommendation. If you have any questions regarding any aspect of the site closure requirements please contact me at (707) 565-6574.

Sincerely,

Cliff Ives

Senior Environmental Health Specialist Leaking Underground Storage Tank Local Oversight Program

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c:

**Enclosures** 

Mr. Chris Igbinedion, NCRWQCB (w/o enc.)

Mr. George Goobanoff

## L.U.S.T. SITE

509	Oloverdale	N
	[SITE ADDRESS]	

Name of Document:

7. (Sampling Report)

Pate Received:

Review initiated by:

7. (Sampling Report)

9/12/99

## GEORGE GOOBANOFF ASSOCIATES

218 Burgundy Road, Healdsburg, CA 95448
Environmental Health & Safety
Management Company

April 2, 1999

APR 1 2 1999 ENVIRONMENT

County of Sonoma
Department of Environmental Health
Attn.: John Anderson
1030 Center Drive, Suite A
Santa Rosa, CA 95403-2067

Re: SCDHS-EHD Site # 00002426; NCRWQCB Site # 1TS0108

Dear Mr. Anderson:

After completing sampling of the monitoring wells M-4 and M-6, at Cloverdale High School site, 509 N. Cloverdale Blvd., for four consecutive quarters, we believe, given the following information, that this site should be considered for closure. The first quarter sampling event showed all non-detect for M-4 and Gasoline at 0.065 ug/l and Xylenes at 0.56ug/l for M-6. It should be noted that both of the results are just above detection levels. The second quarter sampling event again showed M-4 at non-detect for all materials and M-6 with Gasoline at 0.125ug/l and petroleum lighter then diesel at 0.119 ug/l. The third quarter and fourth quarter results for M-4 and M-6 were all non-detect. I also reviewed the results with Marc Seeley, our principal geologist who was present at each sampling event at the Cloverdale High School site. Mr. Seeley concurs that the site presently should be considered for closures. Mr. Seeley believes that given this is an activated parking area and driveway that the material did not come from the ground water but rather from surface water exiting the parking lot.

We have enclosed with this letter the results of our last monitoring event. We will be delaying any further monitoring, due to fiscal constraints of the school district, until we hear back from your office. If you require us to continue monitoring, please call. If you have any questions or require further information you may contact me at (707) 433-4647 or page me at (707) 491-1924. Thank you for your assistance in this matter.

Sincerely,

George Goobanoff, R.E.A., C.E.M., L,I& R,A.

George Goobanoff Associates

c.c. Mike Carey, Superintendent Cloverdale School District

APR 2 9 1999

Check for closure

Needs sign

purge water 50P

mg/1 pc. 10

The following results are from our fourth quarter monitoring dated 12/16/98:

MW-4				
TOTAL VOL	. $TEMP(F^*)$	pН	TDS(ppm)	APPEARANCE
1.5 gal.	70.0	6.7	170	Silty
5.0 gal.	6906	6.6	180	Clear
10.0 gal.	69.7	6.5	150	Clear
15.0 gal.	69.4	6.4	150	Clear
20.0 gal.	69.4	6.4	150	Clear
30.0 gal.	69.4	6.4	150	Clear
MW 6				
TOTAL VOL	$. \qquad \text{TEMP } (F^*)$	PH	TDS(ppm)	APPEARANCE
1.5 gal.	70.0	7.3	120	Silty
5.0 gal	69.8	7.0	130	Clear
10.0 gal.	69.7	6.8	140	Clear
15.0 gal.	69.4	6.6	150	Clear
20.0 gal.	69.4	6.4	150	Clear
30.0 gal	69.4	6.4	150	Clear
LAB RESUL	TS			
	COMPOUND NAME	SAMPLE	CONCENTRA?	ΓΙΟΝ
MW-4	Benzene	N		
	Toluene	N		
	Ethylbenzene	N		
	M&P-Xylene	N		
	0-Xylene	N		
	MTBE	N/		
	TPH-G	N		
	TPH-D	N,	/D	
	COMPOUND NAME	SAMPLE	CONCENTRA	ΓΙΟΝ
MW-6	Benzene		D O	
	Toluene		/D	
	Ethylbenzene		/D	
	M&P-Xylene		/D	
	O-Xylene		/D	
	MTBE		/D	
	TPH-G		/D	
	TPH-D	N	/D	

NOTE: N/D—Not detected at stated reporting limit. PRE-FIELD CALIBRATION: pH actual = 7.0, instrument = 7.1, TDS actual ND (distilled water standard = ND).

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd. Santa Rosa, CA 95403 Phone: 707 527 7574

Fax: 707 527 7879

## **TRANSMITTAL**

DATE:

12.31.98

TO:

Mr. GEORGE GOOBANOFF

Acct.: 9485

**GOOBANOFF & ASSOCIATES** 

Project: "CLOVERDALE HIGH"

218 BURGUNDY ROAD

**HEALDSBURG CA 95448** 

Phone: 707.433.4647

FAX: 707.433.4647

FROM:

Richard A. Kagel, Ph.D. Claboratory Director

SUBJECT: YOUR PROJECT "CLOVERDALE HIGH" LABORATORY RESULTS

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	SAMPLE TYPE	DATE	KPI LAB#
MW-6	WATER	12.16.98	18640
MW-4	WATER	12.16.98	18641

These samples were received in our laboratory on 12.16.98 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information. Thank you for this opportunity to be of service.

K PRIME, INC. SAMPLE ID: MW-6 LABORATORY REPORT LAB NO: 18640 SAMPLE TYPE: WATER **OUR PROJECT: 9485** 12/16/98 DATE SAMPLED: TIME SAMPLED: YOUR PROJECT: CLOVERDALE HIGH NA METHOD: BTEX + MTRE DATE ANALYZED: 12/29/98 REFFERENCE: EPA 8260/8020 UNITS: μg/L REPORTING **COMPOUND NAME** CAS NO. SAMPLE LIMIT: CONC BENZENE 71-43-2 0.500 ND TOLUENE 108-88-3 0.500 ND ETHYLBENZENE 100-41-4 ND 0.500 ND M-&P-XYLENE 1330-20-7 0.500 O-XYLENE 95-47-6 0.500 ND MTBE ND 1634-04-4 5.00 METHOD: TPH-G DATE ANALYZED: 12/29/98 **REFERENCE: EPA 8015M** UNITS: mg/L REPORTING SAMPLE COMPOUND NAME CONC LIMIT TPH-G 0.0500 ND **METHOD: TPH-D** DATE EXTRACTED: 12/30/98 **REFERENCE: EPA 8015M DATE ANALYZED:** 12/31/98 UNITS: mg/L **SAMPLE** COMPOUND NAME REPORTING LIMIT CONC TPH-D* ND 0.0500 NOTES: ND - NOT DETECTED AT STATED REPORTING LIMIT NA - NOT APPLICABLE REFER TO TPH D GC/FID PATTERN KEY FOR TYPE AND RANGE DESCRIPTIONS * PATTERN TYPE AND RANGE

APPROVED BY:

DATE:

SAMPLE ID: MW-4 K PRIME, INC. LABORATORY REPORT LAB NO: 18641 SAMPLE TYPE: WATER **OUR PROJECT: 9485** DATE SAMPLED: 12/16/98 **TIME SAMPLED:** YOUR PROJECT: CLOVERDALE HIGH NA **METHOD: BTEX + MTBE DATE ANALYZED:** 12/29/98 REFFERENCE: EPA 8260/8020 UNITS: μg/L REPORTING SAMPLE **COMPOUND NAME** CAS NO. CONC LIMIT BENZENE 71-43-2 0.500 ND TOLUENE 108-88-3 0.500 ND ETHYLBENZENE ND 100-41-4 0.500 M-&P-XYLENE 1330-20-7 0.500 ND O-XYLENE 0.500 ND 95-47-6 MTBE 1634-04-4 5.00 ND METHOD: TPH-G **DATE ANALYZED:** 12/29/98 **REFERENCE: EPA 8015M** UNITS: mg/L **COMPOUND NAME** REPORTING SAMPLE CONC LIMIT TPH-G ND 0.0500 **METHOD: TPH-D** DATE EXTRACTED: 12/30/98 **REFERENCE: EPA 8015M DATE ANALYZED:** 12/31/98 UNITS: mg/L SAMPLE **COMPOUND NAME** REPORTING LIMIT CONC TPH-D* 0.0500 ND NOTES: ND - NOT DETECTED AT STATED REPORTING LIMIT NA - NOT APPLICABLE REFER TO TPH D GC/FID PATTERN KEY FOR TYPE AND RANGE DESCRIPTIONS * PATTERN TYPE AND RANGE

**APPROVED BY:** 

DATE:

K PRIME, INC.

LABORATORY BATCH QC REPORT

**DATE(FROM):** 12/18/98

**DATE(TO):** 12/31/98

**METHOD: TPH-D** 

REFERENCE: EPA 8015M/CA DHS LUFT

SAMPLE TYPE: WATER

UNITS: MG/L

## **ACCURACY (MATRIX SPIKE)**

COMPOUND NAME	REPORTING	SPIKE	SPIKE	%
	LIMIT	ADDED	RESULT	RECOVERY
TPH-D	0.05	1.000	1.200	120

## **PRECISION (DUPLICATES)**

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD
	LIMIT	RESULT	RESULT	(%)
TPH-D	0.05	1.200	1.260	4.9

NOTES:

K PRIME, INC. LABORATORY BATCH QC REPORT DATE(FROM): 12/14/98 DATE(TO): 12/31/98

METHOD: TPH-G

REFERENCE: EPA 8015M/CA DHS LUFT

SAMPLE TYPE: WATER

UNITS: MG/L

## **ACCURACY (MATRIX SPIKE)**

COMPOUND NAME	REPORTING	SPIKE	SPIKE	%
	LIMIT	ADDED	RESULT	RECOVERY
TPH-G	0.05	0.50	0.536	107

## PRECISION (DUPLICATES)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD
	LIMIT	RESULT	RESULT	(%)
TPH-G	0.05	0.536	0.545	1.7

**NOTES:** 

K PRIME, INC.
LABORATORY BATCH QC REPORT

DATE(FROM): 12/14/98 DATE(TO): 12/31/98

METHOD: BTEX + MTBE REFERENCE: EPA 8020

**SAMPLE TYPE:** WATER

UNITS: UG/L

## **ACCURACY (MATRIX SPIKE)**

COMPOUND NAME	CAS NO.	REPORTING	SPIKE	SPIKE	%
		LIMIT	ADDED	RESULT	RECOVERY
BENZENE	71-73-2	0.50	25.0	26.3	105
TOLUENE	108-88-3	0.50	25.0	23.1	92
ETHYLBENZENE	100-41-4	0.50	25.0	22.7	91
M+P-XYLENE	1330-20-7	0.50	50.0	41.2	82
O-XYLENE	95-47-6	0.50	25.0	22.4	90
MTBE	1634-04-4	5.00	25.0	26.5	106

## **PRECISION (DUPLICATES)**

COMPOUND NAME	CAS NO.	REPORTING	SPIKE	DUPLICATE	RPD
		LIMIT	RESULT	RESULT	(%)
BENZENE	71-73-2	0.50	26.3	23.6	10.8
TOLUENE	108-88-3	0.50	23.1	23.5	1.7
ETHYLBENZENE	100-41-4	0.50	22.7	23.2	2.2
M+P-XYLENE	1330-20-7	0.50	41.2	42.3	2.6
O-XYLENE	95-47-6	0.50	22.4	22.7	1.3
MTBE	1634-04-4	5.00	26.5	26.4	0.4

**NOTES:** 

## K PRIME, INC.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd., Santa Rosa, CA 95403

PHONE: (707) 527-7574

FAX: (707) 527-7879

CHAIN OF CUSTODY RECORD

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End of Report Rec'd 4/12/99

L.U.S.T. SITE

509 Clover dule
[SITE ADDRESS]

No Recommendations

County of Sonoma
Department of Environmental Health
Attention: John Anderson
1030 Center Drive, Suite A
Santa Rosa, CA 95403-2067

OEPT. OF HEALTH SVCS

OCT 2 2 1998

ENVIRONMENTAL

DIVISION

September 30, 1998

Dear Mr. Anderson:

Re: Monitoring Well Sampling Report

For: Cloverdale High School 509 N. Cloverdale Blvd.

Cloverdale, CA

The following results are from our third quarter monitoring:

MW	TOTAL <u>DEPTH</u>	WATER THICK	WATER COLUMN	CASING DIAMETER	PURGE VOLUME
6	19.64 ft.	5.72 ft.	13.92 ft.	4 in.	15 gal.
4	19.49 ft.	6.65 ft.	12.84 ft.	4 in.	15 gal.

PRE-FIELD CALIBRATION: pH actual = 7.0, instrument = 7.1, TDS actual ND(distilled water standard = ND), instrument = 000.

MW-6 TOTAL VOL.	TEMP_(F*)	pН	TDS(ppm)	APPEARANCE
1.5 gal.	68.3	7.4	10	Clear
7.0 gal.	68.5	7.1	10	Clear
10.0 gal.	68.1	7.1	10	Clear
15.0 gal.	68.1	7.1	10	Clear

Water level @ sampling: 14.2 feet

Sample time: 9:30 a.m.

TEMP (F*)	PH	TDS(ppm)	<b>APPEARANCE</b>
73.5	8.5	20	Clear
70.6	8.3	20	Clear
70.8	8.2	20	Clear
70.8	8.2	20	Clear
	73.5 70.6 70.8	73.5 8.5 70.6 8.3 70.8 8.2	73.5 8.5 20 70.6 8.3 20 70.8 8.2 20

Water level @ sampling: 12.88 feet

Sample time: 10:45 a.m.

## **RESULTS**

	COMPOUND NAME	SAMPLE CONCENTRATION
<u>MW-6</u>	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	M&P-Xylene	N/D
	0-Xylene	N/D
	MTBE	N/D

	<b>COMPOUND NAME</b>	SAMPLE CONCENTRATION
MW-4	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	M&P-Xylene	N/D
	O-Xylene	N/D
	MTBE	N/D

If you have any questions or require further information, please call me at 433-4647.

Sincerely,

George Goobanoff

Sonoma County Office of Education

cc: Dan Klasson

K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd. Santa Rosa CA 95403 Phone: 7075277574 Fax: 707 527 7879

## **TRANSMITTAL**

DATE:

09.29.98

TO:

Mr. GEORGE GOOBANOFF

GOOBANOFF ASSOCIATES

218 Burgundy Road Healdsburg CA 95448

Phone: FAX:

707.433.4647 707.433.4647

FROM:

Richard A. Kagel, Ph.D. RHK

9/29/98

Acct: 100-9485

Project: CLOVERDALE HIGH

Laboratory Director

SUBJECT: RESULTS YOUR PROJECT "CLOVERDALE HIGH SCHOOL" LABORATORY

Enclosed please find K Prime's laboratory reports for the following samples:

SAMP <u>LE ID</u>	SAMPLE TYPE	DATE	KPI LAB#
MW-4	WATER	09.11.98	16257
MW-6	WATER	09.11. <b>98</b>	16258

These samples were received in our laboratory on 09.11.98 and tested in our laboratory as requested on the chain of custody document.

Please call me if you have any questions or need further information. Thank you for this opportunity to be of service.

PAGE 01

K PRIME, INC.

6484-429-404 88:91 8661/62/60

K PRIME, INC.

LABORATORY REPORT

SAMPLE ID: MW-4

16257

SAMPLE TYPE: WATER

OUR PROJECT: 100-9485

DATE SAMPLED: 9/11/98

YOUR PROJECT: CLOVERDALE: HIGH SCHOOL TIME SAMPLED: 10:45

METHOD: BTEX DATE ANALYZED: 9/15/98
REFFERENCE: EPA 8020/8260 UNITS: UG/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
BENZENE	71-43-2	0.50	ND
TOLUENE	108-88-3	0.50	ND
ETHYLBENZENE	100-41-4	0.50	ND
M &P-XYLENE	1330-20-7	0.50	ND
O XYLENE	95-47-6	0.50	ND
MTBE	1634-04-4	5.00	ND

METHOD: TPH-G/D

REFERENCE: EPA MOD 8015

DATE ANALYZED: 9/18824/98

WITS: MG/L

COMPOUND NAME	REPORTING LIMIT	SAMPLE CONC	
		CONC	
TPH-G	0.05	ND	
TPH D*	0.05	ND	

## NOTES:

NO - NOT DETECTED AT STATED REPORTING LIMIT NA - NOT APPLICABLE

* DIESEL RANGE EXTRACTABLES G	C/FID PATTERN
DIESEIL FUEL	
DEGRADED DIESEIL FUEL	
PETROLEUM - HEAVIER THAN DIESEL	
PETROLEUM - LIGHTER THAN DIESEL	
UNKNOWN EXTRACTABLES PATITERN	

PREPARED BY:	
DATE:	9.25.98
APPROVED BY:	MAK
DATE:	9/29/91

03/53/1338 12:38 101-251-1813 K BKIME' INC BVGE 05

K PRIME, INC.

LABORATORY REPORT

**SAMPLE ID:** LAB NO: **SAMPLE TYPE: DATE SAMPLED:** 

MW-6 16258 WATER 9/11/98

**OUR PROJECT: 100-9485** 

YOUR PROJECT: CLOVERDALE HIGH SCHOOL

TIME SAMPLED:

9:30

**METHOD: BTEX** 

REFFERENCE: EPA 8020/8260

DATE ANALYZED:

9/15/98

UNITS:

UG/L

COMPOUND NAME	ID NAME CAS NO.		SAMPLE CONC
BENZENE	71-43-2	0.50	ND
TOLUENE	108-88-3	0.50	ND
ETHYLBENZENE	100-41-4	0.50	ND
M-8P-XYLENE	1330-20-7	0.50	ND
O-XYLENE	95-47-6	0.50	ND
MTBE	1634-04-4	5.00	NO

METHOD: TPH-G/D

**REFERENCE: EPA MOD 8015** 

DATE ANALYZED:

9/18824/98

UNITS:

MG/L

COMPOUND NAME	REPORTING LIMIT	\$AMPLE CONC
TPH G	0.05	0.125
TPH-D*	0.05	0.119

## NOTES:

ND - NOT DETECTED AT STATED REPORTING LIMIT

NA - NOT APPLICABLE

* - DIESEL RANGE EXTRACTABILES GC/FID PATTERN DIESEL FUEL **DEGRADED DIESELL FUEL** PETROLEUM - HEAVIER THAN DIESEL YES PETROLEUM - LIGHTER THAN DIESEL UNKNOWN EXTRACTABLES PATITERN

PREPARED BY:	AB	
DATE:	9.25.98	
	atel	

APPROVED BY:

DATE:

# K PRIME, INC.

4197 Lakeside Drive, Suite 170, Richmond, CA 94806

CHAIN OF CUSTODY RECORD
FAX: (510) 2224817 PHONE: (510) 222-4815

*			,	(														
Disposal Method	Relinquished by: (Signan	Relinquished by: (Signan											NW 6	MW-4	Sample Identification No.	Contact	Project Location	Cloverdak Hint School
	(e)	ure)	100											3-11-78	ĝġle	·	عرماى محد	School
ĺ	}												9.30	/0.4€	Time	Sampler (Sig		
															Lab Sample No:	ghature)	Client Projec	Address/Phone
			<u></u>										3	ε	Type of Sample		No.	. A
			8										4	4	No. of Containers			
	Received	Teceived	Received		-	-			-	+	-		×	Κ	TON 6/	SRA		
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males													`	Land	pected Pargund Firme			
	Date	Date	Date 9/11/98												Rej	\		KPI Project No.
{	Time	Time	Time ハラのジ									   			marks			KI No.
	Disposal Method  White Conv. Accompanies Camples	(Signature)  Date  Time Received by: (Signature)  Date  Units Conv. Accompanies Camples	(Signature)  Date Time Received by: (Signature)  Date  Date  (Signature)  Date	(Signature)  Date 9/11/9X 12:00  Acceived by: (Signature) 9/11/9X (Signature)  Date Time Received by: (Signature)  Date  Date  Uhito Conv. Accompanies Camples	(Signature)  Date 9/11/64 12:00  Acceived by: (Signature)  (Signature)  Date Time Received by: (Signature)  Date  Comparison Compari	(Signature)  Date 9/11/44 12:00 Acceived by: (Signature)  (Signature)  Date Time Received by: (Signature)  Date  (Signature)  Date  Date  Date  Date	(Signature)  Date 9/11/9x 17/me Received by: (Signature) 9/11/9x 12:00 Acceived by: (Signature)  (Signature)  Date 17/me Received by: (Signature)  Date Date Date Date	(Signature)  Date 1/11/4X 1/1/100  Date 1/11/4X 1/1/100  Date 1/1/100  Signature)  Date 1/1/100  Date 1/1/100  Date 1/1/100  Date 1/1/100  Date Date Date  Date  Date  Date  Date  Date  Date  Date  Date  Date  Date  Date  Date  Date  Date  Date  Date	(Signature)  Date 7/11/94 11/me Received by: (Signature)  (Signature)  Date 11/me Received by: (Signature)  (Signature)  Date Date Date Oate Oate Oate Oate Oate Oate	(Signature)  Date 7/11/4X 12:00  Acceived by: (Signature)  (Signature)  Date Time Received by: (Signature)  Date Time Received by: (Signature)  Date  Date  Date  Date  Date  Date  Date	(Signature)  Date 9/1/ // 9/2:00  Acceived by: (Signature)  Date 9/1// // 17:00  Acceived by: (Signature)  Date 9/1// // 17:00  Acceived by: (Signature)  Date  Date  Date  Date	(Signature)  Date 9/11/9x 12:00 Acceived by: (Signature)  Date Time Received by: (Signature)  Date Time Received by: (Signature)  Date Date  Date  Date  Date	(Signature)  Date Time Received by: (Signature)  Date Time Received by: (Signature)  Date Time Received by: (Signature)  Date Date Date Date Date	(Signature)  Date Time Received by: (Signature)  Date Time Received by: (Signature)  Date Time Received by: (Signature)  Date Date Date Date	(Signature)  Date  Time Received by: (Signature)  Date  (Signature)  Date  Time Received by: (Signature)  Date  Oate  Oate  Oate  Date  Oate  Oate	No. of Type No. of Sample No. of Sample Containers (S. S. S	Sample vs. of Sample vs. of Sample Schlainers   Sample vs. of Sample vs. of Sample Schlainers   Sample vs. of Sample vs. of Sample Schlainers   Sample vs. of Sample vs.	Clean Project No.  Clean Project No.  Clean Project No.  Sampler (Signaure)  Time  Sample No. of No.

L.U.S.T SITE: 10/22/98 END OF REPORT

## Leaking Underground Storage Tank LOP Quarterly Report Checklist

Site Ad	dress: 509 Cloverdole	Blud	1. N. D#: 2426
Report	Received: 3/16/98		Report Dated: 3/3/97
Case W	orker: Cliff Ives		
Reporti	ng Period: 1998	M	onitoring Frequency: Quarterly
			۲
(Y)N	Tracking Sheet updated?		
Ø/N	Were MWs sampled? Note anythin	ig nunzna	1: 2 out of 3 wells sampled
Ø/N	Is sampling date within 90 days of	report sub	omittal date?
Y	GW measurements including eleva	tions, flov	v direction, gradient?
ŶN	Is summary of results included in ta	able form	grouped by MW? only for current result
Y/N	Field log with pH, temp., elect. con	nd. readin	gs. purges?
<b>()</b> /N	Chain of Custody included?		
(V)N	Was date of analysis within 14 day	s of collec	ction date?
Ø/N :	Are lab report sheets included?		
YN W	Site plan with N arrow, scale, MW Was report signed by	locations R6, P6	s, bldgs, sewer lines, etc.
ZY/N	Remediation system on-site?	Y/N	Is remediation system being operated?
YN	Free product reported?	Y/N	Was free product removed?
Y/N	Nitrate analysis required?	Y/N	Nitrates sampled and less than 45 ppm?
YN	Change of contact person indicate		
YN	Special recommendations/changes	s (closure	request, change in sampling frequency, etc)
		<u> </u>	
Addi	tional Comments:		
	Destiller	<u> </u>	
	e A		8/11/98
Revie	ewed by:	. <u></u>	Review Date: 1/1/98

L.U.S.T. SITE

509 Clover Dale Blvd., N Site Address Cloverdale

QMR

Start

3/16/98

County of Sonoma Department of Environmental Health Attention: John Anderson 1030 Center Drive, Suite A Santa Rosa, CA 95403-2067 CLIFF

DEPT. OF HEALTH SVCS

MAR 1 6 1998

ENVIRONMENTAL HEALTH DIVISION

March 3, 1998

Dear Mr. Anderson:

Re: Monitoring Well Sampling Report.

The following results are from our first quarter monitoring:

MW	TOTAL DEPTH	WATE LEVE		WATER COLUMN	CASING DIAMETER	PURGE VOLUME
6 4	19.75' 19.60'	2.30' 1.98'		17.45 17.62	4" 4"	11.4 gal. 11.5 gal.
CALIBRATIO	ON					
<b>STANDARD</b>		PH10		PH4	PH7	SC.
READING	•	10.16		3.98	7.01	1380 OHMS.
MW-6						
TIME	TOTAL VOL	4.	TEME	<u>P (C*)</u>	PH	SC.
09:45	0.4 gal.		13,9		6.37	350
09:53	11.4 gal.		18.1		6.42	300
10:00	22.8 gal.		18.6		6.46	310
10:10	34.2 gal.		18.7		6.46	310
Water level @	sampling: 2.3	0'				
Sample collec						
MW 4						
TIME	TOTAL VOL	4.	TEME	<u>P (C*)</u>	РН	SC
10:50	0.4 gal.		17.5		6.37	275
10:57	11.5 gal		18.6		6.35	260
11:05	23.0 gal.		19.4		6.36	270
1,1:11	34.5 gal.		20.0		6.36	290
Water level @	sampling: 2.0	0'				
Sample collec	ted @ 11:20.				<b>4</b> /	ed
						2 ~ 0

Need

## **RESULTS**

MW-6	Gasoline	0.065 mg/L
	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	Xylenes	0.56 ug/L
	Diesel	N/D
	MTBE	N/D
MW-4	Gasoline	N/D
	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	Xylenes	N/D
	Diesel	N/D
	MTBE	N/D

If you have any questions or require further information, please call me at 433-4647.

Sincerely

George Goobanoff

Sonoma County Office of Education

cc: Dan Klasson

## LEGEND

## Analytical Services

MAR 1 6 1983

ENVIRONMENTAL HEALTH DIVISION

3636 N. Laughlin Road, Suite 110 Santa Rosa, California 95403 707.526.7200 Fax 707.541.2333 E-Mail; info@legendlab.com

Patty Springer So. Co. Office of Educ. 5340 Skylane Blvd. Santa Rosa, CA 95403 Date: 02/23/1998

LEGEND Client Acct. No: 11360

LEGEND Job No: 98.00168 Received: 01/30/1998

Client Reference Information

Cloverdale High School

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Facsimile transmission of this report is non-confidential. If received in error, please contact sender immediately at the number listed and return the information to us by mail. Please refer to the enclosed "Key to Result Flags" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2313.

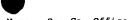
Submitted by:

Jennifer L. Roseberry

Project/Managér

cc., George Goobanoff
 George Goobanoff Assoc.
218 Burgundy Rd.
 Healdsburg, CA 95448

Enclosure(s)



Client Acct: 11360 LEGEND Job No: 98.00168 Date: 02/23/1998

ELAP Cert: 2193 Page: 2

Ref: Cloverdale High School

SAMPLE DESCRIPTION: MW-6

Date Taken: 01/30/1998

Time Taken: 10:20
LEGEND Sample No: 281366

TEMO PORCEITA TOTAL							
LEGEND Sample No: 281366							Run
		Reporting	f		Date	Date	Batch
Parameter	Results Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE, Liquid)							
5030/M8015						02/10/1998	3945
DILUTION FACTOR*	1					02/10/1998	3945
as Gasoline	0.065	0.050	mg/L	5030		02/10/1998	3945
8020 (GC, Liquid)						02/10/1998	3945
Benzene	ND	0.50	ug/L	8020		02/10/1998	3945
Toluene	ND	0.50	ug/L	8020		02/10/1998	3945
Ethylbenzene	ND	0.50	ug/L	8020		02/10/1998	3945
Xylenes (Total)	0.56	0.50	ug/L	8020		02/10/1998	3945
SURROGATE RESULTS						02/10/1998	3945
Bromofluorobenzene (SURR)	84		₹ Rec.	5030		02/10/1998	3945
M8015 (EXT., Liquid)					02/07/1998		
DILUTION FACTOR*	1					02/10/1998	1402
as Diesel	ND	0.10	mg/L	3510		02/10/1998	1402
SURROGATE RESULTS						02/10/1998	1402
Ortho-terphenyl (SURR)	60		* Rec.	3510		02/10/1998	1402
8260 (GCMS, Liq, MTBE)							
DILUTION FACTOR*	1					02/06/1998	31
Methyl-tert-butyl ether	ND	2.0	ug/L	8260		02/06/1998	31
SURROGATE RESULTS						02/06/1998	31
4-Bromofluorobenzene (SURR)	103		≹ Rec.	8260		02/06/1998	31
Toluene-d8 (SURR)	103		₹ Rec.	8260		02/06/1998	31
1,2-Dichloroethane-d4 (SURR)	95		* Rec.	8260		02/06/1998	31

Client Acct: 11360 LEGEND Job No: 98.00168 Date: 02/23/1998

ELAP Cert: 2193 Page: 3

Ref: Cloverdale High School

SAMPLE DESCRIPTION: MW-4

Date Taken: 01/30/1998 Time Taken: 11:20

LEGEND Sample No: 281367								Run
,			Reporting			Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE, Liquid)								
5030/M8015							02/10/1998	3945
DILUTION FACTOR*	1						02/10/1998	3945
as Gasoline	ND		0.050	mg/L	5030		02/10/1998	3945
B020 (GC, Liquid)							02/10/1998	3945
Benzene	ND		0.50	ug/L	8020		02/10/1998	3945
Toluene	ND		0.50	ug/L	8020		02/10/1998	3945
Ethylbenzene	ND		0.50	ug/L	8020		02/10/1998	3945
Xylenes (Total)	ND		0.50	ug/L	8020	•	02/10/1998	3945
SURROGATE RESULTS -							02/10/1998	3945
Bromofluorobenzene (SURR)	87			% Rec.	5030		02/10/1998	3945
M8015 (EXT., Liquid)						02/07/1998		
DILUTION FACTOR*	1						02/10/1998	1402
as Diesel	ND		0.10	mg/L	3510		02/10/1998	1402
SURROGATE RESULTS							02/10/1998	1402
Ortho-terphenyl (SURR)	72			% Rec.	3510		02/10/1998	1402
8260 (GCMS, Liq, MTBE)								
DILUTION FACTOR*	1						02/06/1998	31
Methyl-tert-butyl ether	ND		2.0	ug/L	8260		02/06/1998	31
SURROGATE RESULTS							02/06/1998	31
4-Bromofluorobenzene (SURR)	108			% Rec.	8260		02/06/1998	31
Toluene-d8 (SURR)	108			% Rec.	8260		02/06/1998	31
1,2-Dichloroethane-d4 (SURR)	106			% Rec.	8260		02/06/1998	31



Client Acct: 11360 LEGEND Job No: 98.00168 Date: 02/23/1998

LAP Cert: 21 Page: 4

Ref: Cloverdale High School

## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

		CCV	CCV					
	CCV	Standard	Standard					Run
	Standard	Amount	Amount			Date	Analyst	Batch
Parameter	* Recovery	Found	Expected	Flags	Units	Analyzed	Initials	Number
TPH (Gas/BTXE, Liquid)								,:-
as Gasoline	101.8	0.509	0.50		mg/L	02/10/1998	сjу	3945
Benzene	96.1	19.21	20.0		ug/L	02/10/1998	сју	3945
Toluene	95.1	19.01	20.0		ug/L	02/10/1998	сју	3945
Ethylbenzene	95.8	19.16	20.0		ug/L	02/10/1998	сју	3945
Xylenes (Total)	96.5	57.90	60.0		ug/L	02/10/1998	сју	3945
Bromofluorobenzene (SURR)	89.0	89	100		* Rec.	02/10/1998	сју	3945
TPH (Gas/BTXE, Liquid)								
as Gasoline	97.6	0.488	0.50		mg/L	02/10/1998	сју	3945
Benzene	93.6	18.71	20.0		ug/L	02/10/1998	сју	3945
Toluene	93.1	18.62	20.0		ug/L	02/10/1998	сју	3945
Ethylbenzene	93.8	18.77	20.0		ug/L	02/10/1998	сју	3945
Xylenes (Total)	94.7	56.82	60.0		ug/L	02/10/1998	сjy	3945
Bromofluorobenzene (SURR)	88.0	88	100		t Rec.	02/10/1998	cjy	3945
M8015 (EXT., Liquid)								
as Diesel	97.2	971.9	1000		mg/L	02/10/1998	dat1	1402
Ortho-terphenyl (SURR)	101.0	101	100		* Rec.	02/10/1998	datl	1402
M8015 (EXT., Liquid)								
as Diesel	102.9	1029	1000		mg/L	02/10/1998	dat1	1402
Ortho-terphenyl (SURR)	108.0	108	100		% Rec	02/10/1998	dat1	1402
M8015 (EXT., Liquid)								
as Diesel	105.6	1056	1000		mg/L	02/11/1998	dat1	1402
Ortho-terphenyl (SURR)	112.0	112	100		% Rec.	02/11/1998	datl	1402
8260 (GCMS, Liq, MTBE)								
Methyl-tert-butyl ether	107.0	42.8	40.0		ug/L	02/06/1998	dat1	31
4-Bromofluorobenzene (SURR)	101.0	101	100		* Rec.	02/06/1998		31
Toluene-d8 (SURR)	100.0	100	100		& Rec.	02/06/1998		31
1,2-Dichloroethane-d4 (SURR)	92.0	92	100		* Rec.	02/06/1998		31

Client Acct: 11360 LEGEND Job No: 98.00168 Date: 02/23/1998

ELAP Cert: 2193 Page: 5

Ref: Cloverdale High School

## METHOD BLANK REPORT

Method

	Blank						Run
	Amount	Reporting			Date	Analyst	Batch
Parameter	Found	Limit	Flags	Units	Analyzed	Initials	Number
TPH (Gas/BTXE, Liquid)							
as Gasoline	ND	0.050		mg/L	02/10/1998	сју	3945
Benzene	ND	0.50		ug/L	02/10/1998	сју	3945
Toluene	ND	0.50		ug/L	02/10/1998	cjy	3945
Ethylbenzene	ND	0.50		ug/L	02/10/1998	сју	3945
Xylenes (Total)	ND	0.50		ug/L	02/10/1998	cjy	3945
Bromofluorobenzene (SURR)	89			% Rec.	02/10/1998	сjу	3945
TPH (Gas/BTXE, Liquid)							
as Gasoline	ND	0.050		mg/L	02/10/1998	cjy	3945
Benzene	ND	0.50		ug/L	02/10/1998	cjy	3945
Toluene	ND	0.50		ug/L	02/10/1998	cjy	3945
Ethylbenzene	ND	0.50		ug/L	02/10/1998	cjy	3945
Xylenes (Total)	ND	0.50		ug/L	02/10/1998	сју	3945
Bromofluorobenzene (SURR)	88			% Rec.	02/10/1998	сју	3945
M8015 (EXT., Liquid)			٠				
as Diesel	ND	0.10		mg/L	02/11/1998	datl	1402
Ortho-terphenyl (SURR)	83			% Rec.	02/11/1998	dat1	1402
8260 (GCMS, Liq, MTBE)							
Methyl-tert-butyl ether	ND	2.0		ug/L	02/06/1998	dat1	31
4-Bromofluorobenzene (SURR)	101			% Rec.	02/06/1998	dat1	31
Toluene-d8 (SURR)	101			% Rec.	02/06/1998	dat1	31
1,2-Dichloroethane-d4 (SURR)	94			% Rec.	02/06/1998	dat1	31

Client Acct: 11360 LEGEND Job No: 98.00168 Date: 02/23/1998

ELAP Cert: 2193 Page: 6

Ref: Cloverdale High School

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE

		Matrix					Matrix	:				
	Matrix	Spike				Matrix	Spike					
	Spike	Dup		Spike	Sample	Spike	Dup.			Date	Run	Sample
Parameter	% Rec.	Rec.	RPD	Amount	Conc.	Conc.	Conc.	Flags	Units	Analyzed	Batch	Spiked
TPH (Gas/BTXE, Liquid)												281316
as Gasoline	97.6	99.6	2.0	0.50	ND	0.488	0.498		mg/L	02/10/1998	3945	281316
Benzene	96.1	99.0	3.0	3.86	ND	3.71	3.82		ug/L	02/10/1998	3945	281316
Toluene	95.2	98.4	3.3	37.02	ND	35.25	36.41		ug/L	02/10/1998	3945	281316
Bromofluorobenzene (SURR)	87.0	91.0	4.5	100	82	87	91		≹ Rec.	02/10/1998	3945	281316
8260 (GCMS, Liq, MTBE)												281395
Methyl-tert-butyl ether	108.0	110.5	2.3	40.0	ND	43.2	44.2		ug/L	02/06/1998	31	281395
4-Bromofluorobenzene (SURR)	106.0	102.0	3.8	100	111	106	102		% Rec.	02/06/1998	31	281395
Toluene-d8 (SURR)	106.0	99.0	6.7	100	105	106	99		₹ Rec.	02/06/1998	31	281395
1,2-Dichloroethane-d4 (SURR)	94.0	96.0	2.1	100	92	94	96		% Rec.	02/06/1998	31	281395

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Acct: 11360 LEGEND Job No: 98.00168 Date: 02/23/1998

ELAP Cert: 2193

Page: 7

Ref: Cloverdale High School

## LABORATORY CONTROL SAMPLE REPORT

					DUP						
		DUP		LCS	LCS	LCS					
	LCS	LCS		Amount	Amount	Amount			Date	Analyst	Run
<u>Parameter</u>	₹ Rec.	% Rec.	RPD	Found	Found	Exp.	Flags	Units	Analyzed	Initials	Batch
M8015 (EXT., Liquid)											
as Diesel	66.0	51.0	25.6	0.66	0.51	1.0		mg/L	02/10/1998	dat1	1402
Ortho-terphenyl (SURR)	80.0	62.0	25.4	80	62	100		* Rec.	02/10/1998	datl	1402

REPORT TO: SCOLE & MUSQUES 4 GOID Recently Sampled ž **Drinking Water** Ş Temp N/A NPDES Wastewater M Initials To assist us in selecting the proper method TEMPERATURE UPON RECENTIBLE

Bottles supplied by Legend' YES MO COMMENTS INVOICE TO: S, C.O Is this work being conducted for regulatory compliance monitoring? is this work being conducted for regulation; enforcement action? Which regulations apply: RCRA other LEGEND QUOTE NO. LS1 P.O. NO. 15.30 DATE 35 98 SOHOCK PROJECT MANAGER TEORGAE (TOO BANCK) COC SEALS PRESENT AND INTACT? YES, NO L/L VOLATILES FREE OF HEADSPACE? (YES, NO CHAIN OF CUSTODY RECORD RELINQUISHED BY: PHONE
PROJECT NAME LOCATION CHOWS ROLLE # and Type of Containers ⁵2O[€] EONH HOEN ₹ HCI COMP **BA**RĐ COMPANY C ADDRESS RECEIVED BY: REMARKS: XIRTAM SIGNATURE BOTTLES INTACT (YES/NO FIELD FILTERED? YES/NO) SAMPLE ID/DESCRIPTION Fax 707.541.2333 SAMPLE REMAINDER DISPOSAL: A C Analytical Services 3636 N. Laughlin Road, Suite 110 Santa Rosa, CA 95403 LEGENI CONDITION OF SAMPLE: E-Mail: info@legendiab.com METHOD OF SHIPMEN /02J 117 SAMPLEDBY Æ 707.526.7200 (PRINT NAME)

DATE

## KEY TO RESULT FLAGS

```
: RPD between sample duplicates exceeds 30%.
*M
     : RPD between sample duplicates or MS/MSD exceeds 20%.
     : Correlation coefficient for the Method of Standard Additions is less than 0.995.
     : Sample result is less than reported value.
    : Value is between Method Detection Limit and Reporting Limit.
    : Analyte found in blank and sample.
     : The result confirmed by secondary column or GC/MS analysis.
     : Cr+6 not analyzed; Total Chromium concentration below Cr+6 regulatory level.
CNA
COMP : Sample composited by equal volume prior to analysis.
     : 2-Chloroethylvinyl ether cannot be determined in a preserved sample.
    : Due to the sample matrix, constant weight could not be achieved.
     : The result has an atypical pattern for Diesel analysis.
     : The result for Diesel is an unknown hydrocarbon which consists of a single peak.
D1
DB
     : ND for hydrocarbons, non-discrete baseline rise detected.
DH
     : The result appears to be a heavier hydrocarbon than Diesel.
DL
     : The result appears to be a lighter hydrocarbon than Diesel.
DR
     : Elevated Reporting Limit due to Matrix.
DS
     : Surrogate diluted out of range.
     : The result for Diesel is an unknown hydrocarbon which consists of several peaks.
DX
FA
     : Compound quantitated at a 2X dilution factor.
FB
     : Compound quantitated at a 5X dilution factor.
     : Compound quantitated at a 10X dilution factor.
FC
FD
     : Compound quantitated at a 20% dilution factor.
FE
     : Compound quantitated at a 50% dilution factor.
पप
     : Compound quantitated at a 100X dilution factor.
     : Compound quantitated at a 200X dilution factor.
FG
FH
     : Compound quantitated at a 500X dilution factor.
     : Compound quantitated at a 1000% dilution factor.
FΙ
FJ
     : Compound quantitated at a greater than 1000x dilution factor.
FΚ
     : Compound quantitated at a 25% dilution factor.
FL
     : Compound quantitated at a 250X dilution factor.
G-
     : The result has an atypical pattern for Gasoline.
G1
     : The result for Gasoline is a single peak.
     : The result appears to be a heavier hydrocarbon than Gasoline.
GH
GL
     : The result appears to be a lighter hydrocarbon than Gasoline.
     : The result for Gasoline is an unknown hydrocarbon which consists of several peaks.
GX
     : Analysis performed outside of the method specified holding time.
HT
     : Confirmation analyzed outside of the method specified holding time.
HTC
     : Prep procedure performed outside of the method specified holding time.
HTP
HTR
    : Received after holding time expired, analyzed ASAP after receipt.
нх
     : Peaks detected within the quantitation range do not match standard used.
J
     : Value is estimated.
     : Matrix Interference Suspected.
ΜI
MSA : Value determined by Method of Standard Additions.
MSA* : Value obtained by Method of Standard Additions; Correlation coefficient is <0.995.
    : Sample spikes outside of QC limits; matrix interference suspected.
NI1
NI2
    : Sample concentration is greater than 4X the spiked value; the spiked value is
       considered insignificant.
NI3 : Matrix Spike values exceed established QC limits, post digestion spike is in
       control.
NI4
    : MS/MSD outside of control limits, serial dilution within control.
     : There is >40% difference between primary and confirmation analysis.
P7
     : pH of sample > 2; sample analyzed past 7 days.
    : Refer to subcontract laboratory report for QC data.
     : Matrix interference confirmed by repeat analysis.
S2
SCN : Thiocyanate not analyzed separately; total value is below the Reporting Limit for
       Free Cyanide.
     : Analysis performed by Selective Ion Monitoring.
     : Conc. of the total analyte ND; therefore this analyte is ND also.
UMDL : Undetected at the Method Detection Limit.
```

UTD : Unable to perform requested analysis.

FORM.FLAGS rev. 09/19/1997

## KEY TO ABBREVIATIONS

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg : Concentration in units of milligrams of analyte per kilogram of sample.

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference.

SNA : Standard not available.

ug/Kg : Concentration in units of micrograms of analyte per kilogram of sample.

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/cm : Micromhos per centimeter.

Mike Carey, Ed. D. District Superintendent October 27, 1997

DEPARTMENT OF HEALTH SERVICES

OCT 2 9 1997

ENVIRONMENTAL HEALTH DIVISION

**Board of Trustees** Scott Jackson, President Bill Cox, Clerk Dick Johnson Linda Pardini Phil Schneider

Cliff Ives Senior Environmental Health Specialist Department of Health Services 1030 Center Drive, Suite A Santa Rosa, CA 95403-2067

Dear Mr. Ives:

As I mentioned to you in my earlier letter, we have had a difficult time going over past records, as a result of administrative changes. After reviewing existing files on the work that has taken place and responding to your August 19, 1997 letter, we are proposing the following actions take place:

- 1. A sensitive receptor survey has been completed of the area, with the assistance of Bob Perrault, City Manager and the Public Works Department of the City of Cloverdale and our own observations and interviews with the surrounding property owners. There are no deep wells, shallow wells, building basements or municipal wells within 1000 feet of said area.
- 2. Resume monitoring on a quarterly basis the two on-site wells (6# and down gradient well #4). Well #6 is located at the site of the excavation and #4 is located down gradient of the excavation site. Note: The ground water flow has already been determined through past testing and sampling. The well will be sampled as follows: Gasoline, BTEX, and diesel. We also will sample for MTBE. In your letter you mentioned that MTBE sampling would be required. However, it should be noted that the present EPA method 8260 is not a reliable procedure for oxygenate compounds; if you could suggest a more reliable method, it would assist us in our sampling program.
- 3. Upon receipt of the results, we will then determine the course of action we will take.

Thanks again for your help.

Sincerely,

Mike Carey, Ed.D. Superintendent

MC:pm

cc: Tom Dunbar

North Coast Regional Water Quality Control Board

COUNTY UF SONOMA

DEPT. OF HEALTH SVCS. REVIEWED BY

Mike Carey, Ed. D. District Superintendent

September 15, 1997

SEP Board of Trustees Cott Jackson, President Bill Cox, Clerk Dick Johnson Linda Pardini Phil Schneider

Cliff Ives Senior Environmental Health Specialist Environmental Health Sonoma County Department of Health Services 1030 Center Drive, Suite A Santa Rosa, CA 95403

RE: SCDHS-EHD #00002426 NCRWQCB #1TS0108

Dear Mr. Ives:

I am writing in response to your letter received August 22, 1997. It indicated that because the Cloverdale Unified School District did not comply to requests for amendments from your department in August 1994, additional data is needed ("it is now required to sample the existing monitoring wells and re-evaluate the site status before the work plan is implemented").

I am assuming that if we are to be reimbursed by the Underground Storage Tank Fund, we willneed pre-approval for the above-mentioned work. Any suggestions that you might have that would expedite the process would be greatly appreciated.

I would also like to ask for an extension of your October 20, 1997, due date for report submittal. As you can tell by my attached chronological notes, this has not been a typical process and as a new administrator to the Cloverdale District, I am just now beginning to sort through what has and has not happened. Again, any setback of the deadline would be appreciated.

Sincerely,

Mike Carey, Ed.D. District Superintendent

MC:pm .

Enclosure

cc: Tom Dunbar, North Coast Regional Water Quality Control Board C. Michael Hogan, Argentum International, Inc.

		UNDERGROUND STORAGE THINK CHRONOLOGY
DATE	FROM	MHAT
8-14-47	COUNTY EINNICONMENTRY HERITH SERVICES →	EHS HAD ASKED FOR AN AMENDED PLAN ON 8-3-94 THAT INCUDED STATE REGIS. STAMP & SIGNATURE, OF QUALPED RODESSIONA, RESPONSIBLE FOR REPORT (FRED HAYDEN, CERTIFIED) HOWEVER, SINCE TIME HAS PASSED, NOW REQUIRES SAMPLES OF ENSTING WELLS & RESPONDED OF SITE BEFORE WORK PLAN IS IMPLEMENTED
1-22-97	Doug Wilson, UST CLEAN UP FUND →	REIMBURSEMENT REQUEST DATED 7-26-96 APPROVED (CLAIM OCIOSI), AMENDMENT #4, FOR \$21,817 MINUS S.000 DEOUCHBLE LETTER OF COMMITMENT RAISED FROM \$1060 TO \$50,000
8-2-96	CUSD → DR HOGAN (AREENTUM)	SIGNED REIMBURSEMENT REQUEST SENT (CORRECTUE ACRON) COSTS \$70,297.) BY DR HOGAN; ORLGINAL MAILED TO STRITE WATER RESOURCE CONTROL BOARD
7-25-96	CAZ HOGAN (ARKENTUA) →	STAITE WATTER RESOURCE CONTROL BOARD FOR REVISION FROM DISTRUCT
10-94	ARGENTUM (FORMERLY RECON?) -	"SWRCB NEBOS ADDITIONAL BACKUP REPORTS" REMBUZSEMENT REQUEST SENT (69,633)
9-14-44 8-11-44 8-3-44	RECON ENV. CORP (FORMERLY CERTIFIED) → HGRZCG & ASSOCIATES CEHS →	DISPOSAL OF 48 DRUMS FROM CLEAN-UP PROPOSAL. REQUESTS FOR DETRILED INVOICES FOR WORK FROFFIRMED, 1988-92 (INVOICESTOBE EXAMINED BY SWRCB) ASKS FOR WORK PAIN AMENOMENTS, DUE 11-4-94
5-2-94	Ceran Field	SENDS A WORCH PLAN TO COUNTY E.H. S.
2-14-44	(上での) できる	DID PERBOYAN 'SPECIFIED AGENCY LIAISON' ROLE, SOIL CHEMIKAL TESTING, EXCAVITION, ON-SITE REPORTION
4-93	TRANS TECH TRANS TECH	(INVOWED SINCE 2-92) DOES PEMEDIATION OF SOILE GROUND LIPTER. ADDITIONAL EXCAVATION OF SOIL
2-2-43	CEH S →	SENDS CLEAN-UP FUND APPLICATION (FOR INVESTIGATION ECLEAN-UP COSTS)
16-9861	HERZCG →	BILLS TO DISTRICT
Szigverg	Dr Hogan Rreentum-Recon-Certified-Erah mettucs P.O. Box 297 Burunsame 94005 (415) 742-9900	ANDY ALLEN MATER RESOLUCE COMPUT. BD. TRANS TECH.  RUCS HERZOS & RSSOCIETES BOX 944212.  1364 N. McDOWELL, B-2. SACRAMENTO 916227 SANTA 1205A  PETRILLIMA 94954 UST PROGRAM



Environmental Health Division

Jonathan J. Krug - Director

August 19, 1997

Dr. Donald Sato Cloverdale Unified School District 97 School Street Cloverdale, CA 95425 FILE COPY

RE:

509 Cloverdale Blvd. N, Cloverdale

SCDHS-EHD Site # 00002426; NCRWQCB Site # 1TSO108

Dear Dr. Sato:

A review of our files shows that the referenced site has had a fuel release from an underground storage tank that has not been fully investigated or remediated.

On May 11, 1994, this Department received a Soil Excavation and Remediation Workplan completed by Certified Engineering & Testing Company. As noted in my, August 2, 1994 letter to you (copy enclosed), this work plan would have been acceptable with appropriate amendments and certification by the qualified professional responsible for its content. Because of the time that has passed since the work plan was submitted, however, it is now required to sample the existing monitoring wells and reevaluate the status of the site before the work plan is implemented. All previous and current ground water laboratory results should also be compiled and analyzed for trends. Current and future analyses must now include testing for methyl tertiary butyl ether.

In addition to sampling the monitoring wells, it is now additionally required that a sensitive receptor survey be completed if it has not already been done. The survey should include all potential vapor receptors, as basements and utility vaults within 250-feet of the release, and all potential groundwater receptors, as water supply wells, surface water, etc., within 750-feet. All municipal water wells withing 1/2 mile must also be included.

Please note that California Code of Regulations, Title 23, Section 2652 (d) requires that you submit status reports on the site to this agency every three months. Failure to remain in compliance with Underground Storage Tank Regulations may jeopardize the funding for the investigation and cleanup-of the site that has been made available by the State Cleanup Fund.

October 20, 1997, has been established as the due date for the submittal of a report with current ground water sampling results, a compilation of sampling data with a trend analysis of previous and current results, and the results of the sensitive receptor survey. The report should all contain recommendations for future investigation or remediation options.

August 19, 1997 509 Cloverdale Page 2

All correspondence submitted for this site investigation should be sent to me and copied to:

Mr. Tom Dunbar North Coast Regional Water Quality Control Board 5550 Skylane Blvd., Suite A Santa Rosa, CA 95403

Preapproval of costs by Cleanup Fund staff is now required for site costs being reimbursed by the fund. Preapproval is recommended for all sites when application to the fund is anticipated.

This Department has appreciated your previous efforts to investigate and cleanup this site. Please do not hesitate to contact me at (707) 525-6574 if you have any questions. For your information, our FAX number is (707) 525-6525.

Sincerely,

Cliff Ives

Senior Environmental Health Specialist Leaking Underground Storage Tank Local Oversight Program

Cupo Ous

CI/jl

Enclosure

cc: Tom Dunbar, North Coast Regional Water Quality Control Board

Ms. Shari Knierem, SWRCB Cleanup Fund



# OUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT

MARK A. KOSTIELNEY
Director of Public Health
GEORGE R. FLORES, M.D.
Health Officer

**ENVIRONMENTAL HEALTH SERVICES** 

1030 CENTER DRIVE, SUITE A

SANTA ROSA

CALIFORNIA 95403-2067

TELEPHONE (707) 525-6563

August 2, 1994

Dr. Donald Sato Cloverdale Unified School District 97 School St. Cloverdale, CA 95425

Re: 509 Cloverdale Blvd. N, Cloverdale

Review of Soil Excavation and Remediation Workplan

[SCPHD Site #2426; NCRWQCB Site #1TSO108]

Dear Dr. Sato:

On May 11, 1994, the Sonoma County Public Health Department (SCPHD) received the Certified Engineering & Testing Company workplan for the referenced site dated May 2, 1994. We have reviewed the plan and generally concur with the scope of work proposed. An amended plan must be submitted, however, that includes the State Registration stamp and the signature of the qualified professional responsible for the report. Additionally, acceptance of the workplan is contingent upon the following:

- 1. The areas where the soil is to be spread for treatment must be bermed for containment, as well as lined. The berm must be designed to hold collected water, in the event of rainfall, so that it may be transferred to waste containers if necessary.
- The excavation must be sampled every 20 feet of sidewall.
- 3. This Department does not recommend replacing the treated soil in the excavation, but will allow this if discreet sample results are "Non Detect". One sample per every 20 cubic yards of material is required at a minimum.
- 4. A permit will be required to overexcavate and spread soil from the tank pit from the Northern Sonoma County Air Pollution Control District (the workplan indicated BAAQMD).
- Monthly gradient calculations and flow direction plotting, and quarterly monitoring well sampling are required for a minimum of 1 year.

### NOV 2 9 1995

## ENVIRONMENTAL HEALTH DIVISION

(15)

Property Address:
509 N. Cloverdale Blvd.
(Cloverdale High School)

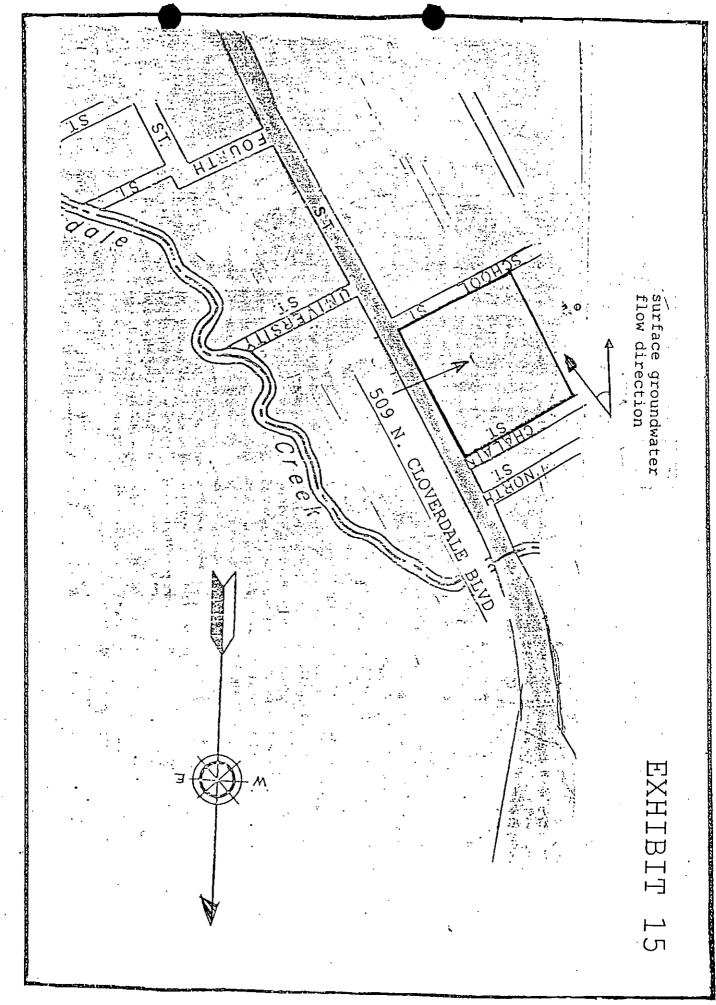
Reference to exhibit 15, 15a and summary table "A".

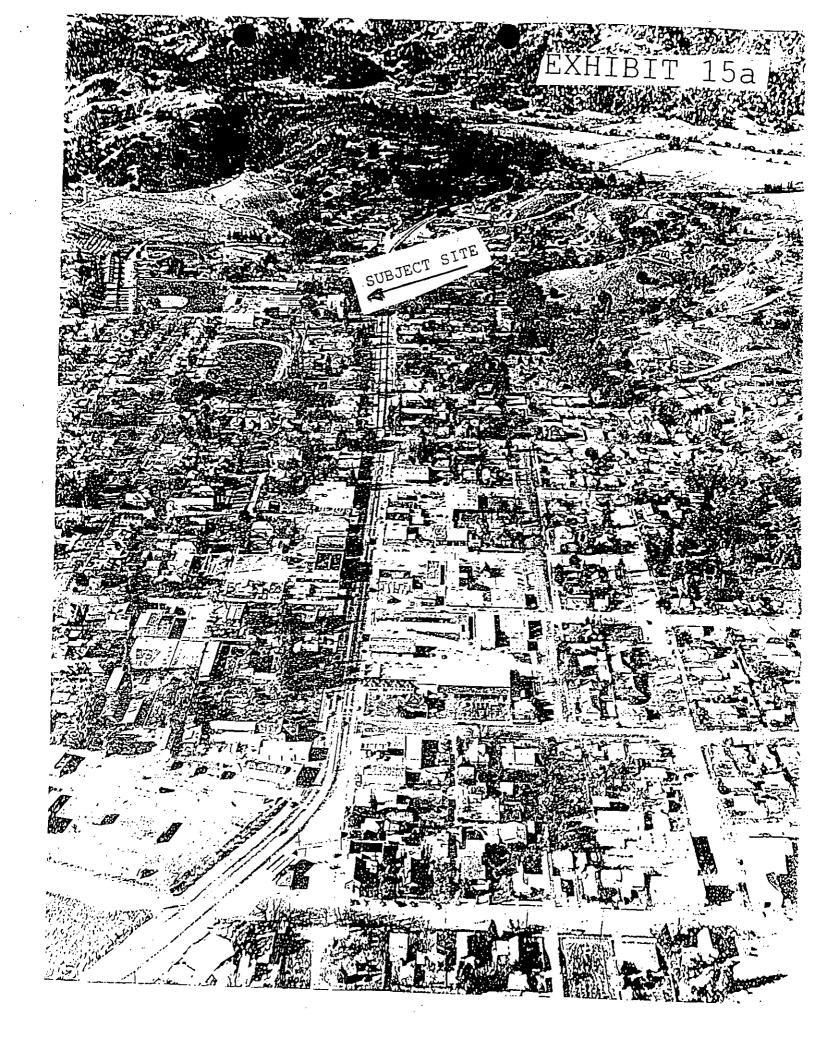
#### Field Review:

According to a report, the tanks have been removed, and the problem is localized. Therefore, movement or migration of petrohydrocarbons is not expected to occur.

#### CONCLUSION:

Contamination within Cloverdale Blvd. R/W from this site is not expected.





# SUMMARY TABLE "A"

LOCATION	Map parcel #	Cloverdale City Engr. parcel #	Storage drums, tanks, containers	ntaminat	Contaminant concentrations	Contaminant (A)	Groundwater (G)	Groundwater (S) depth	Contaminant Contaminant	Env. assessment of probable contamination of Caltrans W/R
28333 Sandholm ROAD	1		_	_	-	+	-		-	Not expected
1201 South Cloverdale	2		_	_	_	+	-		0	Not expected
1184 South Cloverdale	3	8	+	-	-	+	+		0	Not expected
1175 South CLOVERDALE	4	10	+	+	+	+	-		0	Not expected
690 South Cloverdale	5	11 12	-	-	•	+	+		_	Not expected
330 South Cloverdale	6	3	-	•	•	+	+		0	Not expected
337 South Cloverdale	7	4	+	-	•	-	_		0	High Testing
235 South Cloverdale	8		+	+	+	+	+		+	Not expected
206 Cloverdale	9	2	ı	ı	ı	+	+	-	<b>1</b>	Not expected
132 Cloverdale	10	1	1	1	 	+	+		1	Probable resting
116 Cloverdale	11	13	+	+	+	+	+			Not expected
103 Cloverdale	12	14	+	+	+	+	_			Not expected
101 Cloverdale	13	7	-	-	_	+	_	_	0	Testing High recomended
418 Cloverdale	14	5	+	+	ı	+	+	-	0	Not expected

509 Cloverdale	15	6	+	-	_	_	+	_	-	Not expected
444 Cloverdale	16		+	+	_	+	-		0	Not expected
819 CLOVERDALE	17	9	+	+	+	+	_	•	+	Not expected
28313 Cloverdale	29	,		+	_	+	_		0	Not expected

### SUMMARY TABLE "A"

- (1) Storage Drums, Tanks, and Containers
  - + = no HW storage drums, tanks, or containers on site
  - = HW storage drums, tanks, or containers on site
- (2) Other Contamination Sources
  - + =herbicides, pesticides, aerial lead, asbestos, or other contaminants unlikely
  - = other non-contaminants possible
- (3) Contaminants Concentrations
  - + = non-hazardous/non-contaminated Concentrations
  - = contaminated concentrations
  - ! = hazardous concentrations
- (4) Movement of contaminants
  - + = confined within responsible party's property
  - = infiltration into r/w
- (5) Groundwater Flow
  - + = flowing away from r/w
  - = flowing towards r/w
- (6) Groundwater Depth
  - + = beneat depth of contamination
  - = above depth of contamination
- (7) Remediation of contaminants
  - + = remediation completed, case closed
  - o = under remediation and monitoring
  - = no remediation yet

#### **REQUEST FOR SERVICE**

Page 1 of ____

County of Sonoma – Department of Health Services
Environmental Health Division – Hazardous Materials Program
1030 Center Drive, Suite A, Santa Rosa, CA 95403 (707) 525-6565

entered 5h 9-21-94 Date City, Zip Time Facility Name Super. City Unincorporated Owner Address Commercial Residential Classification: Person Requesting Service Phone A. Complaint B. Site review monumm C. Plan check Address of Person Requesting Service City, State, Zip D. Recheck/reinspection E. Other **BOS Person Notified Date Notified** Time Notified Disposition; 1. Service completed Description 2. Follow up Cloverdale 3. Referral to 4: Referral/completed 5. Enforcement word resolve 6. No violation 7. No action 7 dusel are 30 barrels De this a oak tree an. N. t Report of Investigation P 40 yards lion so gron as possible 9-22-94 Water 9-26-94 be removed when the last deaning is done 9-26-94 Registered Environmental Health Specialist / Geologist **Date Completed** enfered a /HMRFS (Rev. 06/94)



# COUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT

MARK A. KOSTIELNEY
Director of Public Health
GEORGE R. FLORES, M.D.
Health Officer

#### **ENVIRONMENTAL HEALTH SERVICES**

1030 CENTER DRIVE, SUITE A • SANTA ROSA • CALIFORNIA 95403-2067 • TELEPHONE (707) 525-6565

August 2, 1994

Dr. Donald Sato Cloverdale Unified School District 97 School St. Cloverdale, CA 95425



Re: 509 Cloverdale Blvd. N, Cloverdale

Review of Soil Excavation and Remediation Workplan

[SCPHD Site #2426; NCRWQCB Site #1TSO108]

Dear Dr. Sato:

On May 11, 1994, the Sonoma County Public Health Department (SCPHD) received the Certified Engineering & Testing Company workplan for the referenced site dated May 2, 1994. We have reviewed the plan and generally concur with the scope of work proposed. An amended plan must be submitted, however, that includes the State Registration stamp and the signature of the qualified professional responsible for the report. Additionally, acceptance of the workplan is contingent upon the following:

- 1. The areas where the soil is to be spread for treatment must be bermed for containment, as well as lined. The berm must be designed to hold collected water, in the event of rainfall, so that it may be transferred to waste containers if necessary.
- The excavation must be sampled every 20 feet of sidewall.
- 3. This Department does not recommend replacing the treated soil in the excavation, but will allow this if discreet sample results are "Non Detect". One sample per every 20 cubic yards of material is required at a minimum.
- 4. A permit will be required to overexcavate and spread soil from the tank pit from the Northern Sonoma County Air Pollution Control District (the workplan indicated BAAQMD).
- 5. Monthly gradient calculations and flow direction plotting, and quarterly monitoring well sampling are required for a minimum of 1 year.

August 3, 1994 Dr. Donald Sato Page 2

November 4, 1994, has been established as the due date for the implementation of the plan and a report of activity.

All correspondence submitted for this site investigation should be sent to the attention of Cliff Ives and copied to Mr. Luis Rivera, North Coast Regional Water Quality Control Board.

Please do not hesitate to contact me at (707) 525-6574 if you have any questions. For your information, our new FAX number is (707) 525-6525.

Sincerely,

Cliff Ives

Capp Ques

Senior Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

cc: Mr. Luis Rivera, North Coast Regional Water Quality Control

Board

Mr. Fred Hayden, CERTIFIED/Earth Metric

Site Na	ame <u>Claverda</u>	le 4.5	Site ID#	2426 - E
Site Ad	dress 509 Clo	verdale N	RB Site ID#	
Date of	Notification //A	By	Firm	
Date a	nd Time of Activity	N/A		
	Excavation Activities			
<del></del>	Soil Borings			
	Monitoring Well:	Construct Develop Sample	Abandon GW	/ Levels
1	Site:	Consultation Inspection		
	Domestic Well:	Sample		
	Other:			
Notes _	Site ins	ocction done from done on to closure	as f.1	You up
	to inspect	ion done on	5/2/94	and
•	n response	to closure ,	equest.	55 ga/
-	drums hu	e been vemou	ed from	u site.
		ion of content		
0	lestination	will be requi	ied. N	, 'v
	stickpile.	or excavation.	2 MW	is are
	remeining			
<del></del>				<del></del> -
_				<del></del>
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_				
_		·		
_			·	
		Travel Time	Site Time	0.2
Site Vi	sit By Oiff S	Travel Time 0.6  Nes Date 7/12/94	Arrival Time	1040
	•	SERWOCH NORWOCK		Page 1 of /

S.C.Repro

# WORK PLAN TO PERFORM SOIL EXCAVATION, BACKFILL OF TANK PIT, AND SOIL REMEDIATION AT 509 NORTH CLOVERDALE BOULEVARD CLOVERDALE, CALIFORNIA

RECEIVED
JUN 6 1994
HAZARDOUS MATERIALS

#### Site Identification

Cloverdale High School 509 North Cloverdale Boulevard Cloverdale, California

#### Site Description and History

The subject site is located at 509 North Cloverdale Boulevard, Cloverdale, California. On July 17, 1986, two underground storage tanks (a 350-gallon gasoline tank and a 1,000-gallon diesel tank) were removed. These two tanks, and associated product lines and fuel pumps, had been in service for at least 10 years prior to removal. The site is paved with asphalt.

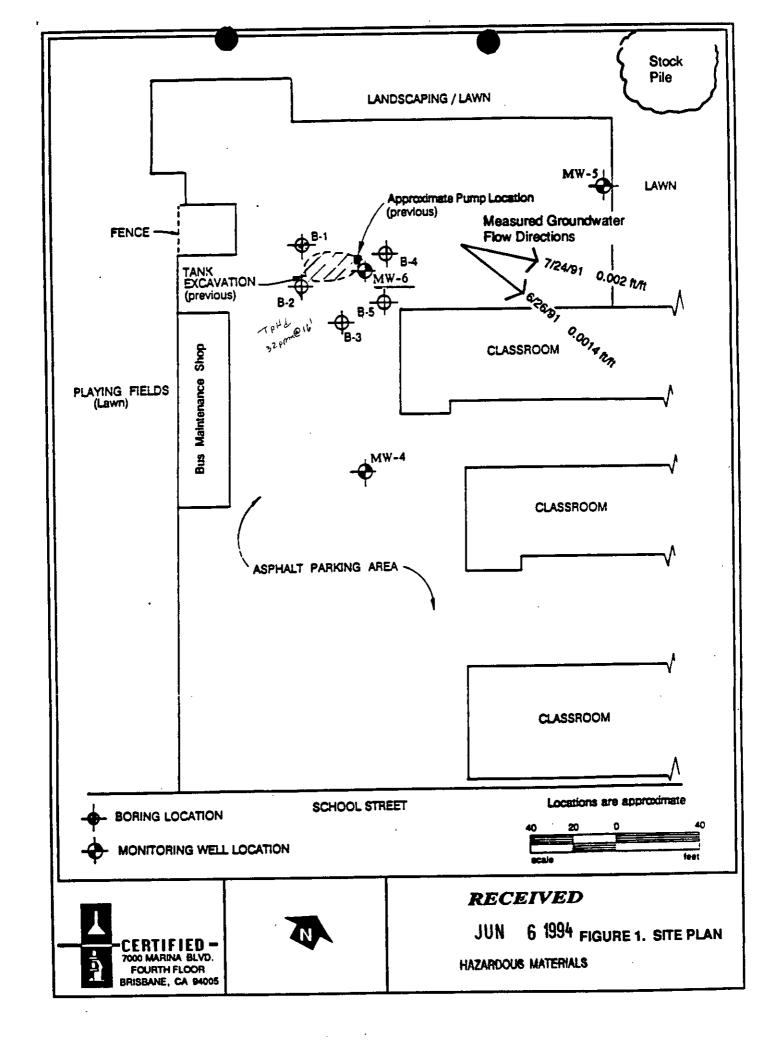
#### **Background**

At the time of overexcavation following removal of the two tanks referred to above (in 1986), soil samples were collected for laboratory analyses from a depth of approximately 10.5 feet below grade of the 1,000-gallon diesel tank and for the gasoline tank. Laboratory analytical results indicated levels of Total Petroleum Hydrocarbons as gasoline (TPHg) and Total Petroleum Hydrocarbons as diesel (TPHd) of up to 31 parts per million (ppm) and 800 ppm, respectively. Figure 1 shows the location of the excavation.

Soil borings were drilled following the excavation (Figure 1). Soil samples were collected from these soil borings at depths of 5.5 feet below grade, 10.5 feet below grade, and 16 feet below grade. The laboratory analytical results are summarized in Table 1. The analytical results for TPHg, motor oil, benzene, toluene, xylene and ethyl benzene (BTEX) for the six borings were non-detect (ND) with the following exceptions. The TPHd laboratory analytical result for the soil sample collected from soil boring B-2 at 16 feet below grade was 32 ppm. The TPHd and TPHg laboratory analytical results for the soil sample collected from soil boring B/MW-6 at 5.5 feet below grade were 1,700 ppm and 3,200 ppm, respectively.

Laboratory analytical results for total lead (LUFT manual) from the soil samples collected from the twelve soil borings ranged from 3.1 ppm to 5.8 ppm.

Soil samples collected from the excavation spoils pile were composited and analyzed. Laboratory analytical results were 150 ppm for motor oil (Herzog, 1991).



#### TABLE_1

# SUMMARY OF ANALYTES DETECTED IN SOIL SAMPLES (10.5 FEET BELOW GRADE) AND GROUND-WATER SAMPLES

(Concentrations reported in parts per million except as noted)

SAMPLE	DATE	TPHg	TPHd	BENZENE
DIESEL TANK overexcavation (10.5)	JULY 28, 1986	ND	10 to 31	ND
GASOLINE TANK (10.5)	JULY 28,1986	800	ND	ND
B-1 (soil)	MAR 25, 1991	ND -	ND	
B-2 (soil)	MAR 25, 1991	ND (	32 (16 feet bg)	
B-3 (soil)	MAR 25, 1991	ND	ND	
B-4 (soil)	MAR 25, 1991	ND `	ND	
B-5 (soil)	MAR 25, 1991	ND	ND	
B/MW-6 (soil) 5.5 feet bg	MAR 25, 1991	1,700 (5.5 feet bg)	3,200 (5.5 feet bg)	
MW4 (water)	JUL 24, 1991	ND	ND	ND
MW5 (water)	JUL 24, 1991	ND	ND	ND
MW6 (water)*	JUL 24, 1991	490 PPB	(1100 PPB	0.5 PPB

Analyses are in parts per million, except where noted as ppb (parts per billion).

bg = below grade

MW = Monitoring Well

ND = Non-Detected

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

*note - 0.11 ppm chromium was detected in this sample

Source: Transtech Remediation Services, September 1993.

Direction of ground-water flow is easterly, based on the monitoring of three monitoring wells (MW4, MW5 and MW6) in the area of the former underground storage tanks (Herzog, 1991).

Ground-water samples collected from MW4, MW5 and MW6 were sampled for TPHg, BTEX, and Extractable Petroleum Hydrocarbons (as diesel and as Motor Oil), on July 31, 1991 and August 1, 1991. Laboratory analytical results of these constituents for MW4 and MW5 were ND for all constituents. Laboratory analyses results of these constituents for MW6 were ND except as follows: laboratory analytical results for TPHg, benzene and TPHd were 490 parts per billion (ppb), 0.5 ppb and 1,100 ppb, respectively.

#### Site Owner and Mailing Address

Cloverdale Unified School District Dr. Donald Sato, District Superintendent 97 School Street Cloverdale, CA 95425 Tel (707) 894-1920 Fax (707) 894-1922

#### Consultant Name and Address

CERTIFIED/Earth Metrics 7000 Marina Boulevard, 4th Floor Brisbane, CA 94005 Tel (415) 742-9900 Fax (415) 742-1033

#### Laboratory

Sequoia Analytical 680 Chesapeake Drive Redwood City, CA 94063

### Tank Pit Over-Excavation and Soil Sampling, Remediation

- Conduct underground utilities check with USA alert for the High School Site to be excavated.
- Conduct excavation and spreading not to exceed a total of one (1) field day.
   Obtain aeration permit from the Air Quality Management District (BAAQMD) prior to excavation, if remediation is active (i.e., abatement).

- Specify a plastic bottom and cover tarp as required (CERTIFIED/Earth Metrics to procure tarps). Specify response procedures in the event of rain to cover the spread soil. Respond for up to three rainfall events. Train district staff in response to the rainfall events and weekly watering of soils.
- Provide Photoionization Detector (PID) testing on site to test the soil being excavated (not to exceed 20 excavated cubic yards) and the soil in the pit sidewalls.
- Excavate up to twenty (20) excavated cubic yards, spreading of soil on site over perforated pipe with potential for use with air blower, and every three weeks rototilling for nine weeks (three rototilling events). Loading, delivery, and possible spreading of nitrogen and phosphorous enriched mulch to enhance petroleum hydrocarbon degradation is included.
- Attempt to excavate all soil having greater than 100 ppm total petroleum hydrocarbons but in no case more than twenty (20) cubic yards will be excavated. If possible, soil will be excavated to a lower concentration. But in no event will excavation be performed below the level of two (2) feet above semi-confined water.
- Document the results of the aeration methodology in the typewritten report, in two (2) copies.
- Perform one round of sidewall and bottom testing of one (1) soil sample for petroleum hydrocarbons as gasoline with BTEX and one (1) sample for total petroleum hydrocarbons as diesel with BTEX. Perform one sample test of the spread soil after excavation and after each rototilling event.
- Perform testing of aerated soils after excavation has been completed and the piles of soil have been put in place for aeration. Test one (1) discrete sample for total petroleum hydrocarbons as gasoline and one sample as diesel with BTEX using a 15-work-day lab turnaround.

All sample techniques, handling procedures, and analytical methodologies as described in both the LUFT guidance and the tri-regional guidelines shall apply.

- Perform sampling of aerated soils approximately six (6) weeks after spreading and every three (3) weeks after that for a period of up to nine (9) weeks. (Two rounds of progress testing.)
- Test one (1) discrete soil sample after six (6) weeks and every three (3) weeks after as described above for total petroleum hydrocarbons as gasoline with BTEX using 15-work-day laboratory.

- Test one (1) discrete soil sample after six (6) weeks and every three (3) weeks after.
- Assuming that the county provides permission, replace uncompacted aerated clean soil in the excavated pit.

#### **Analysis**

The soil samples will be analyzed for TPHd and TPHg with BTEX.

#### Quality Assurance/Quality Control Plan

Proper sample containerization, labeling, preservation, and Chain-of-Custody procedures will be followed according to CERTIFIED/Earth Metrics protocol. The samples will be shipped with ice in the cooler.

#### Sampling Protocol

The Sonoma County Public Health Department will be notified at least 72 hours prior to sampling.

#### Schedule

Tank pit overexcavation is tentatively scheduled for the end of May 1994. Reportage is scheduled for November 1994.

#### Reportage

Copies of the soil sampling analysis, a signed laboratory analytical test results letter, a ground-water sampling log, a sample Chain-of-Custody, and a chronological summary of these and previous soil sample results will be provided in a typewritten report. Two (2) copies of this report will be provided to the following agency:

quarterly sampling.

1 copy to NC

Ms. Mary Allen

Geologist

Sonoma County Department of Public Health

Santa Rosa, CA

Reference

Herzog (1991).

6/6/94

5/11/94

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RECEIVED

MAY 1 1 1994

HAZAMOCUS MATERIALS

May 2, 1994

Ms. Mary Allen Geologist Sonoma County Public Health Department 1030 Center Drive, Suite A Santa Rosa, CA 95403

Subject:

Excavation and Aeration of Petroleum Contaminated Soil. and Backfill of Tank Pit at Cloverdale High School, 509 North Cloverdale Boulevard, Cloverdale, California (CERTIFIED/Earth Metrics file reference \$40079)

Dear Ms. Allen:

CERTIFIED/Earth Metrics has been retained by Dr. Donald Sato, of the Cloverdale Unified School District, to conduct soil chemical testing, overexcavation of a former underground storage tank pit, and on-site aeration of petroleum hydrocarbons in soil located at a portion of the abovereferenced site. We hereby enclose a Work Plan to accomplish these objectives using standard operating procedures designed for this type of investigation. We plan to excavate the soil at the end of May 1994 and to issue a report in October 1994. If you have any questions, please call me at (415) 742-9900.

SONOMA COUNTY

PUBLIC HEALTH

DEPARTMENT

REVIEWED BY

HAZARDOUS MATERIALS

Sincerely,

Project Manager

Enclosure: Work Plan

cc: Dr. Donald Sato

Providence New York Memphis

Certified

Company

Environmental

7000 Marina Boulevard

Brisbane, CA 94005

415-742-9900 Fax 415-742-1033

Consultants & Laboratory

Services

4th Floor

Boston

Engineering & Testing®

Dallas San Francisco Los Angeles

A 542 GROUP COMPANY

# WORK PLAN TO PERFORM SOIL EXCAVATION, BACKFILL OF TANK PIT, AND SOIL REMEDIATION AT 509 NORTH CLOVERDALE BOULEVARD CLOVERDALE, CALIFORNIA

RECEIVED
MAY 1 1 1994

HAZAMDOUS MATERIALS

#### Site Identification

Cloverdale High School 509 North Cloverdale Boulevard Cloverdale, California

#### Site Description and History

The subject site is located at 509 North Cloverdale Boulevard, Cloverdale, California. On July 17, 1986, two underground storage tanks (a 350-gallon gasoline tank and a 1,000-gallon diesel tank) were removed. These two tanks, and associated product lines and fuel pumps, had been in service for at least 10 years prior to removal. The site is paved with asphalt.

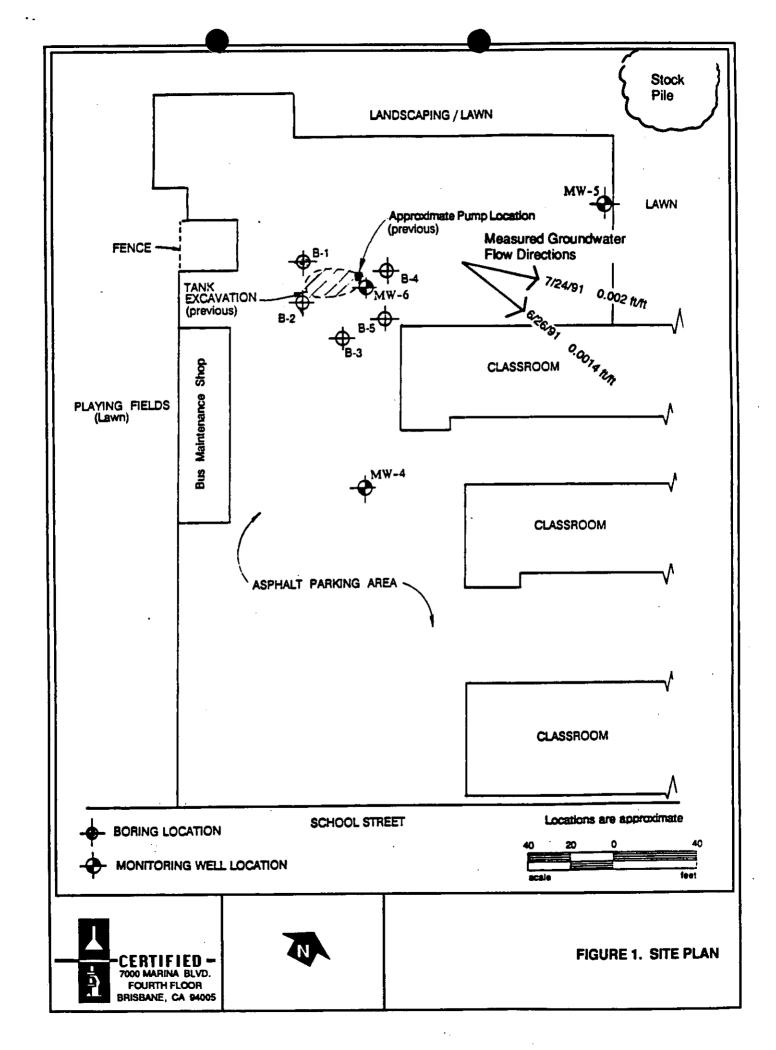
#### **Background**

At the time of overexcavation following removal of the two tanks referred to above (in 1986), soil samples were collected for laboratory analyses from a depth of approximately 10.5 feet below grade of the 1,000-gallon diesel tank and for the gasoline tank. Laboratory analytical results indicated levels of Total Petroleum Hydrocarbons as gasoline (TPHg) and Total Petroleum Hydrocarbons as diesel (TPHd) of up to 31 parts per million (ppm) and 800 ppm, respectively. Figure 1 shows the location of the excavation.

Soil borings were drilled following the excavation (Figure 1). Soil samples were collected from these soil borings at depths of 5.5 feet below grade, 10.5 feet below grade, and 16 feet below grade. The laboratory analytical results are summarized in Table 1. The analytical results for TPHg, motor oil, benzene, toluene, xylene and ethyl benzene (BTEX) for the six borings were non-detect (ND) with the following exceptions. The TPHd laboratory analytical result for the soil sample collected from soil boring B-2 at 16 feet below grade was 32 ppm. The TPHd and TPHg laboratory analytical results for the soil sample collected from soil boring B/MW-6 at 5.5 feet below grade were 1,700 ppm and 3,200 ppm, respectively.

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Soil samples collected from the excavation spoils pile were composited and analyzed. Laboratory analytical results were 150 ppm for motor oil (Herzog, 1991).



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Source: Transtech Remediation Services, September 1993.

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every entered in sichwall

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Ms. Mary Allen Cliff IVEL
Geologist
Sonoma County Department of Public Health
Santa Rosa, CA

#### Reference

Herzog (1991).

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5/11/94



## COUNTY OF SONOMA **PUBLIC HEALTH DEPARTMENT**

Director of Public Health GEORGE R. FLORES, M.D.

MARK A. KOSTIELNEY

#### **ENVIRONMENTAL HEALTH SERVICES**

1030 CENTER DRIVE, SUITE A

SANTA ROSA

CALIFORNIA 95403-2067

TELEPHONE (707) 525-6565

May 3, 1994

Dr. Donald Sato Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Site Inspection at 509 Cloverdale N., Cloverdale Re:

(SCPHD No. 02426, NCRWQCB Site No. 1TSO108)

Dear Dr. Sato:

A routine inspection of the above referenced Leaking Underground Storage Tank site was done by this Department on May 2, 1994.

Several 55-gallon drums, with potentially contaminated material, were noted on site without adequate labeling. Some drums were uncovered, one containing soil, the others apparently containing water. As well as being potentially hazardous, the drums containing the open water were noted to have mosquito larvae and are a public nuisance. All drums and other containers holding monitor well purge water, decontamination water, waste oil, or hazardous substances or wastes must be appropriately labeled and securely covered.

The containers must also be protected from vandalism by being stored in a fenced or otherwise secured area.

Additionally, the inspection revealed stockpiled soil that is not being properly maintained if it is from the fuel tank excavation. It is required that all potentially contaminated soil be securely covered to protect the soil from rain, and to protect the public from possible contamination. The stockpile must also be bermed to prevent the migration of soil and rainwater run-off. Please take appropriate action immediately to secure the stockpile if this soil is in fact from the tank excavation.

May 3, 1994 Dr. Donald Sato Page 2

A reinspection will be done on or after May 18, 1994 to insure compliance with this notification.

For further information or discussion I may be telephoned at (707) 525-6574 Monday through Friday between 7:30 and 9:00 a.m.

Yours truly,

Cliff Ives, R.E.H.S.

Cliff Ques

Senior Environmental Health Specialist Leaking Underground Storage Tank Local Oversight Program

c: Luis Rivera, NCRWQCB Don McEdwards, Trans Tech Remediation Services

## FIELD INSPECTION REPORT



□ UST ∠ UST

Site Name Clover dale H. Sr Site ID# 02426-F
Site Address 509 Cloverdale
Date of Notification By Firm
Excavation Activities
Soil Borings
Monitoring Well: Construct Develop Sample Abandon GW Levels
Site: Consultation Inspection
Underground Tank: New Closure Samples taken
Other:
Notes Mon. for Wells appear secure.
Drums with purge water (?) and
possibly contaminated soil are stored
unfenced on A.C. south of MW5.
They don't appear well marked and
some seem to have been vandelized -
4 are uncovered (10+ soil, 1-2/3 full
of water, 1-5- full, 1-3"-4" full) The
containers with water have mosquito
Containers with water have mosquito larvae in them, 3-4 cuyds of soil
with remnants of visqueen throw sheeting
through out are located south of the drums. Dr Donald Sato is not in the
drums. Dr Donald Sato is not in the
District office to discuss this
Site Visit By ? Que Date 5/2/94 Time 1345-143
Distribution: White: file Yellow: SFRWQCB NCRWQCB Page 1 of

#### GEORGE GOOBANOFF ASSOCIATES

Environmental Health & Safety Management 218 Burgundy Road Healdsburg, CA 95448 tel/fax 707-433-4647

> February 6, 2009 Project No: 226.9805

Ms. Darcy Bering Sonoma County Environmental Health Division 475 Aviation Blvd., Suite 220 Santa Rosa, CA 95403

RE:

RESPONSE TO SCEHD ANNUAL REVIEW AND

**RECOMMENDATION FOR CASE CLOSURE** 

**Cloverdale High School** 

509 Cloverdale Blvd., Cloverdale, California

SCEHD Site #2426, NC-RWQCB Site #1TSO108

DEPT. OF HEALTH SVCS

MAR 9 9 2009

ENVIRONMENTAL HEALTH DIVISION

Dear Ms. Bering:

This letter report has been prepared at the request of Ms. Claudia Rosatti, Superintendent of Cloverdale Unified School District (CUSD), and in accordance with the Sonoma County Environmental Health Division (SCEHD) annual review letters dated December 18, 2000, September 6, 2001, February 11, 2004, April 18, 2006, March 20, 2007, and September 25, 2008.

The site investigation has received concurrence for closure from the SCEHD and the North Coast Regional Water Quality Control Board (NC-RWQCB) in accordance with the SCEHD letters dated June 19, 2001 and December 14, 2001. However, a Remedial Action Completion Certificate cannot be issued until the shallow groundwater monitoring wells at the site are properly abandoned.

This report provides a background summary of the UST Investigation, documentation of the accessibility of the shallow groundwater monitoring wells based on our observations made during a recent site visit, responds to the SCEHD concerns addressed in their annual review letters, and presents our conclusions and recommendations for this site.

#### **BACKGROUND**

An investigation has been performed at this site due to former underground storage tanks (UST's) containing petroleum hydrocarbon products located near the bus maintenance building at the referenced site (Plate 1, Site Location Map). The location of the former UST's is presented on Plate 2 attached to this report.

A 1,000 gallon UST that contained diesel fuel (TPH-D) and a 350 gallon UST that contained gasoline (TPH-G) were removed from the site on July 17, 1986 by Herzog Associates (Herzog). Soil samples were collected from the UST removal pit that resulted in concentrations of TPH-D and TPH-G at concentrations of 620 and 730 ppm, respectively.

Herzog returned to the site on July 28, 1986 to over-excavate soils from the UST removal pit. Approximately 5 ½ feet of additional soil was removed from the bottom of the former UST pit. Additional soil samples were collected from the bottom of the excavation pit that resulted in TPH-D at 31 ppm and 10 ppm, and TPH-G at 800 ppm.

In October 1989, Herzog installed three (3) shallow groundwater monitoring wells (MW-4, MW-5, and MW-6) at the locations presented on Plate 2. A copy of the borings logs and well construction details are included in this report as Plates 3 through 5.

During the monitoring well installation, Herzog collected soil and groundwater samples from the monitoring well soil borings. Analysis of the soil and groundwater samples resulted in no detections of compounds analyzed for in monitoring wells MW-4 and MW-5. However, the soil sample from 5.5 ft bgs in MW-6 resulted in 1,700 ppm of TPH-G and 3,200 ppm of TPH-D, and the initial grab groundwater sample collected from MW-6 resulted in 1.3 ppm of TPH-G and 7.4 ppm of TPH-D.

The tank removal and over-excavation, as well as the installation of the monitoring wells, is documented in Herzog Associates' "Report of Underground Tank Investigations" dated January 22, 1990.

Beginning in 1998, George Goobanoff Associates (GGA) performed five (5) groundwater monitoring events of monitoring wells MW-4 and MW-6. The location of MW-5 could not be verified since it appeared to be located beneath a portable classroom building, and therefore was not sampled during these events. Based on the SCEHD letter dated December 18, 2000, groundwater samples have not been collected from monitoring well MW-5 since 1991.

According to Ms. Sharon Richardson, CUSD Maintenance Supervisor, the portable classrooms were placed at their current locations in 1998 (prior to when GGA began monitoring). The results of the five (5) groundwater monitoring events for monitoring wells MW-4 and MW-6 performed by GGA are as follows:

Та	Table: Summary of Analytical Results - Groundwater Monitoring (1998-99)										
Date	Sample ID	TPH-G	TPH-D	В	Т	E	m,p-X	o-X	MTBE		
3/3/98	MW-4	ND	ND	ND	ND	ND	ND	ND .	ND		
5/27/98	MW4	, ND	ND. A.	ND &	, ND	ND	ND	ND .	ŅĐ		
9/30/98	MW-4	ND	ND	ND	, ND	ND	ND	ND	ND		
12/16/98	, MW-4	ND	, did	ND	ND 🐇	ND.	, ND	, ND	ND		
5/4/99	MW-4	ND ""	ND	ND	ND	ND	ND	'ND	ND		
3/3/98	MW-6	0.065 mg/L	ND	ND	ND	ND	ND	0.56 μg/L	ND		
5/27/98	MW-6	ND	ND	ND	ND	ND	ND	ND	ND		
9/30/98	MVV-6	ND	ND	ND	ND	ND	ND	ND	ND		
12/16/98	MW-6	ND	ND	ND	ND	ND	ND	ND	ND		
5/4/99	MW-6	ND	ND	ND	ND	ND	ND_	ND	ND		

Notes: ND = Not Detected

The above results were submitted to the SCEHD in GGA's report dated August 9, 1999. This report included a recommendation to cease monitoring well sampling and also recommended case closure.

In June 2001, a GGA representative visited the site to determine the status of the monitoring wells. GGA completed a Status Report dated June 29, 2001 that was submitted to the SCEHD. At the time of that report, monitoring well MW-6 was located and accessible, monitoring well MW-4 had been paved over and not located, and monitoring well MW-5 was not located and presumed to be beneath the portable classroom based on older site diagrams.

#### SITE GEOLOGICAL AND HYDROLOGICAL CHARACTERISTICS

The site is located in the northernmost end of the Alexander Valley, a northwest trending structural feature, at an elevation of approximately 330 feet above mean sea level (MSL). The nearest surface water bodies are Cloverdale Creek and the Russian River located approximately 1,400 feet and 4,250 feet, respectively, east of former UST location (Plate 1). Based on our review of the California Division of Mines and Geology, Geologic Map of the Santa Rosa Quadrangle (compiled by D.L. Wagner and E.J. Bortugno, 1982), the site is underlain by Holocene aged alluvium.

Based on our knowledge of the Russian River alluvial terrace, it is probable that there are multiple groundwater bearing zones beneath the site. The local, shallow groundwater bearing zone was identified during the construction of monitoring wells MW-4, MW-5, and MW-6 in 1989 (Herzog, 1990). We constructed a generalized geologic cross section (Cross Section A-A', Plate 4) based on the subsurface lithology recorded on the boring logs for monitoring wells MW-4, MW-5, and MW-6 (Plates 5 through 7, respectively).

The vadose zone consists of silty clay to sandy clay in the upper 12 to 15 ft of soil. The local, shallow groundwater bearing zone consists of clayey sand and gravel. Groundwater was encountered at a depth of approximately 15 feet below ground surface (bgs) in each of the monitoring wells during drilling/installation in 1989. The lithology that composes the groundwater bearing zone was identified from 12 to 18 ft bgs in MW-4 and 14 to 20 ft bgs in MW-6. Underlying the groundwater bearing zone is a clay to sandy clay zone encountered at depths of 18 and 20 ft bgs in monitoring wells MW-4 and MW-6, respectively. This layer is probably the top of an aquitard separating the shallow groundwater bearing zone from deeper aquifers. The thickness and lateral distance of the presumed aquitard from the former UST area is not known. The top of the groundwater bearing zone was identified at a depth of 15 ft bgs in MW-5. However, the bottom of the shallow groundwater bearing zone in monitoring well MW-5 was not encountered (final drilling depth of 25 ft bgs). We estimate the bottom of the groundwater bearing zone to be approximately 28 to 30 feet bgs since the shallow aquifer appears to tilt, and thicken to the north, in the direction of MW-5 (Plate 4).

Based on previous information (Plate 3) and the location of the site related to Cloverdale Creek and the Russian River (Plate 1), the shallow groundwater gradient is estimated to be toward the east (northeast to southeast).

The nearest water supply well is located on the Cloverdale High School site (509 Cloverdale Blvd.), approximately 590 feet southeast (Plate 1). Based on our consultation with Ms. Sharon Richardson, CUSD, the depth of the water supply well is approximately 35 ft bgs. The CUSD does not have a copy of the driller's log for this well, therefore we do not have any additional information such as the well screen interval or date of installation for this well.

We also consulted with Mr. Paul Wade, City Engineer, City of Cloverdale, regarding information he may have pertaining to water resources and use for the area. The City of Cloverdale has four (4) municipal wells drilled to depths of approximately 100 ft bgs. The wells and the City of Cloverdale's water treatment facility is located adjacent to the Russian River, east of US Highway 101, a significant distance from the subject site. Mr. Wade had no further information pertaining to private domestic water supply wells in the area.

#### **CURRENT SITE CONDITIONS**

A GGA representative traveled to the site on January 28, 2009 to observe current site conditions prior to preparation of this report. Previous site maps were reviewed, and the locations of monitoring wells MW-4, MW-5, and MW-6 were measured from the northernmost existing, permanent classroom building as shown on Plates 2 and 3.

The only monitoring well located on the site and observed was monitoring well MW-6 (Plate 2), which had not been paved over during a re-paving of the asphaltic parking lot completed in 1999. However, the location of this well was approximately 10 feet southwest from the measured location as indicated from previous site maps. The 4-inch well cap was intact, but corroded, and the annular space within the Christy box was dry. GGA replaced the 4-inch locking well cap to ensure the integrity of monitoring well MW-6 until further action occurs. Photos 1 and 2 attached to this report document this well location and condition.

Monitoring well MW-4 (Plate 2) was paved over during the placement of an asphalt sealer to the asphaltic parking lot in 2007 and therefore was not observed during our recent site visit on January 28, 2009. However, GGA and CUSD identified the location of MW-4 during a site visit prior to the placement of the asphalt sealer approximately two years ago based on the previous site map, and therefore the approximate location is known to within an area of approximately 10 feet. It is our opinion that a geophysical survey will be required in this area again to verify the exact location of MW-4 prior to abandoning the well. The area of monitoring well MW-4 is readily accessible, and there should be no limitations to complete a geophysical survey to locate this well. Photo 3 attached to this report documents the approximate location of MW-4.

Monitoring well MW-5 (Plate 2) has been of primary concern at this site since the exact location is unknown, but presumed to be beneath a portable classroom building based on the measurements extracted from previous site maps (Plate 3). The portable classrooms rest approximately one foot above the ground surface, and the dry space beneath the portables are enclosed with permanent paneling and are not accessible. Utilities (electricity, fiberoptic lines, heating/cooling, etc.) are installed so that access to the space beneath the portable buildings is not required. Therefore, it is nearly impossible to access the space beneath the portable building to verify the location of MW-5 without the building being re-located. Photo 4 attached to this report documents the limited space beneath the portable.

RESPONSE TO SCEHD ANNUAL REVIEW AND RECOMMENDATION FOR CASE CLOSURE Cloverdale High School 509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

#### PORTABLE RE-LOCATION POTENTIAL

The portable classrooms were placed at their current location (Plate 2) in approximately 1998 according to Ms. Sharon Richardson, CUSD Maintenance Supervisor. During each of GGA's site visits dating back to 1998, the portable classrooms have been located at their current locations. Based on the necessity of their use, and limited funds available, the CUSD is unable to re-locate the portables as documented in the CUSD letter to the SCEHD dated October 23, 2008. A copy of this letter is attached to this report.

#### MONITORING WELL ABANDONMENT

In accordance with the SCEHD letters, prior to issuing the Remedial Action Completion Certificate the monitoring wells must be properly abandoned. Accessibility to monitoring wells MW-4 and MW-6 is good, although a geophysical survey may need to be performed in the area of MW-4 to verify the presumed location. However, access to monitoring well MW-5 is such that abandonment of this well cannot occur due to the portable classroom covering this well.

We consulted with a geophysical company to ascertain the potential for completing a geophysical survey to locate monitoring well MW-5. The following is the response received from Mr. Ken Blom, PG, PGp, NorCal Geophysical Consultants. A copy of the e-mail correspondence between GGA and NorCal Geophysical is attached to this report.

"When using geophysical methods to locate wells, full access over the area of investigation is required. Any objects such as parked cars, debris, buildings, etc. on top of, or in close proximity to, do not allow for the required access. Additionally, such objects cause instrument interference and unreliable data. Therefore, we conclude that [MW-5 located] under a portable building can not be reliably investigated using ground penetrating radar and electromagnetic geophysical instrumentation."

Although there is no reliable way to locate monitoring well MW-5 (inaccurate site plan, space beneath portable classroom inaccessible, and unable to conduct geophysical survey) we consulted with a drilling company to determine the feasibility of pressure grouting the monitoring well if located. Ms. Terri White, Office Manager, Clear Heart Drilling, responded to GGA's request for assessment as follows. A copy of the e-mail correspondence between GGA and Clear Heart Drilling is attached to this report.

"After speaking to Rick Schneider, our drilling foreman, we have come to the conclusion that we would not be able to destroy or pressure grout [MW-5] under the portable classroom."

RESPONSE TO SCEHD ANNUAL REVIEW AND RECOMMENDATION FOR CASE CLOSURE Cloverdale High School 509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

#### **CONCLUSIONS**

Based on our assessment of this site, it is our opinion that monitoring wells MW-4 and MW-6 should be abandoned as soon as possible since the wells are accessible at this time. A geophysical survey will need to be performed in the area of MW-4 to verify the location of this well prior to abandonment. Conventional abandonment procedures by overdrilling the well casing, removal of the well casing and grouting the boring by the tremmie method should be applied for MW-4 and MW-6.

Based on the presumed location of monitoring well MW-5 under a portable classroom, it is our opinion that this well cannot be abandoned by conventional methods or by pressure grouting. The CUSD has no plans or the necessary funding to re-locate the portable classroom. Therefore, it is our opinion that the SCEHD should consider closing this site investigation while leaving MW-5 in place.

Monitoring well MW-5 penetrates the local, shallow groundwater bearing zone. The nearest water supply well is located on site at the Cloverdale High School at a distance of 590 ft southeast from the former UST's (Plate 1). Based on our consultation with the CUSD, the well is approximately 35 ft deep. Based on the drilling logs from monitoring wells MW-4 and MW-6, it is our opinion that the water supply well likely penetrates the second groundwater bearing zone beneath the site.

The UST's have been removed from this site and there appears to be no other hazardous materials sources on site that would likely affect the shallow groundwater bearing zone via the MW-5 pathway. It is likely that MW-5 remains sealed in a Christy box as the placement of a portable classroom does not require any preparatory grading procedures. The well is covered by a building that has permanent paneling around its base with no access, therefore it is our opinion that the potential for tampering is minimal to nil.

Based on our site visit and observations, and consultation with representatives of the CUSD, there are no buried utilities within 100 feet of monitoring well MW-5 including electric, gas, water, and septic.

During installation of the monitoring wells by Herzog in 1989, there were no detections of compounds analyzed for in soil or groundwater samples collected from MW-5.

It is our opinion that the potential for MW-5, if left in place, to have negative effects to the environment is minimal.

**RESPONSE TO SCEHD ANNUAL REVIEW AND** RECOMMENDATION FOR CASE CLOSURE **Cloverdale High School** 509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

#### RECOMMENDATIONS

We recommend that a geophysical survey be performed to verify the location of MW-4 followed by abandonment of monitoring wells MW-4 and MW-6.

We also recommend collecting a groundwater sample from the water supply well located on the Cloverdale High School property. The groundwater samples should be analyzed for petroleum hydrocarbon constituents TPH-G, TPH-D, BTEX, and MTBE.

After monitoring well abandonment of MW-4 and MW-6 and groundwater sampling of the water supply well located on the site, and based on the previous soil and groundwater data collected from monitoring wells MW-4 and MW-5 (no detections of compounds analyzed for) as well as the groundwater data collected during sampling of MW-6 (1998-99), we recommend that the SCEHD consider this site for closure with MW-5 left in place beneath the portable classroom.

We trust this report has been responsive to the requests made in the SCEHD annual review letters for this site. If you have any questions regarding this site or this report please feel free to call us at 707-528-0810.

Sincerely,

George Goobanoff Associates

David L. Bush **Project Geologist** 

Marc W. Seeley, PG 6824

Senior Geologist

George Goobanoff **Principal** 

RESPONSE TO SCEHD ANNUAL REVIEW AND RECOMMENDATION FOR CASE CLOSURE Cloverdale High School 509 Cloverdale Blvd., Cloverdale, California SCEHD Site #2426, NC-RWQCB Site #1TSO108

Attachments:

Plate 1: Site Location Map

Plate 2: Site Map with Approximate Monitoring Well Locations

Plate 3: Previous Site Map with Cross Section A'A'

Plate 4: Generalize Cross Section A-A'

Plate 5: Boring Log and Construction Detail for MW-4
Plate 6: Boring Log and Construction Detail for MW-5
Plate 7: Boring Log and Construction Detail for MW-6

Site Photos 1 through 4

CUSD Response to Annual Review Letter dated October 23, 2008

GGA e-mail correspondence with NorCal Geophysical Consultants

GGA e-mail correspondence with Clear Heart Drilling

CC:

Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Ms. Sharon Richardson, Maintenance & Operations Supervisor Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Mr. Luis Rivera NC-RWQCB 5550 Skylane Blvd., Suite A Santa Rosa, CA 95403

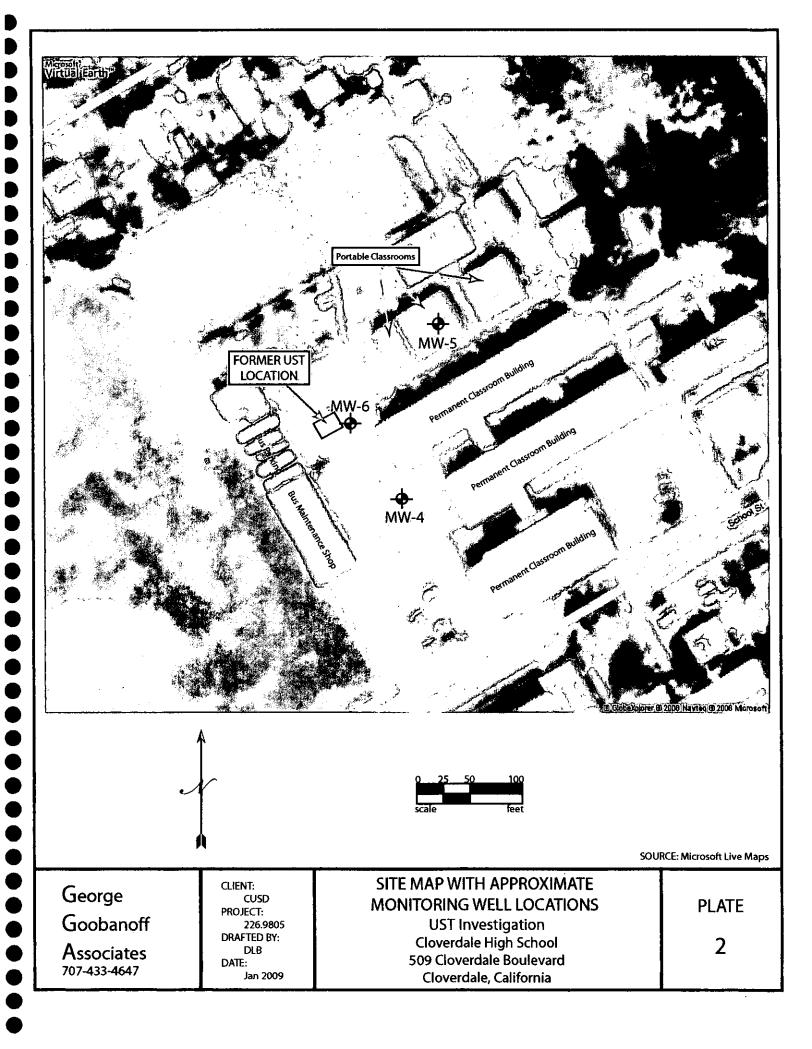
Ms. Kim Sellards UST Enforcement Unit 1001 I Street, 16th Floor Sacramento, CA 95814

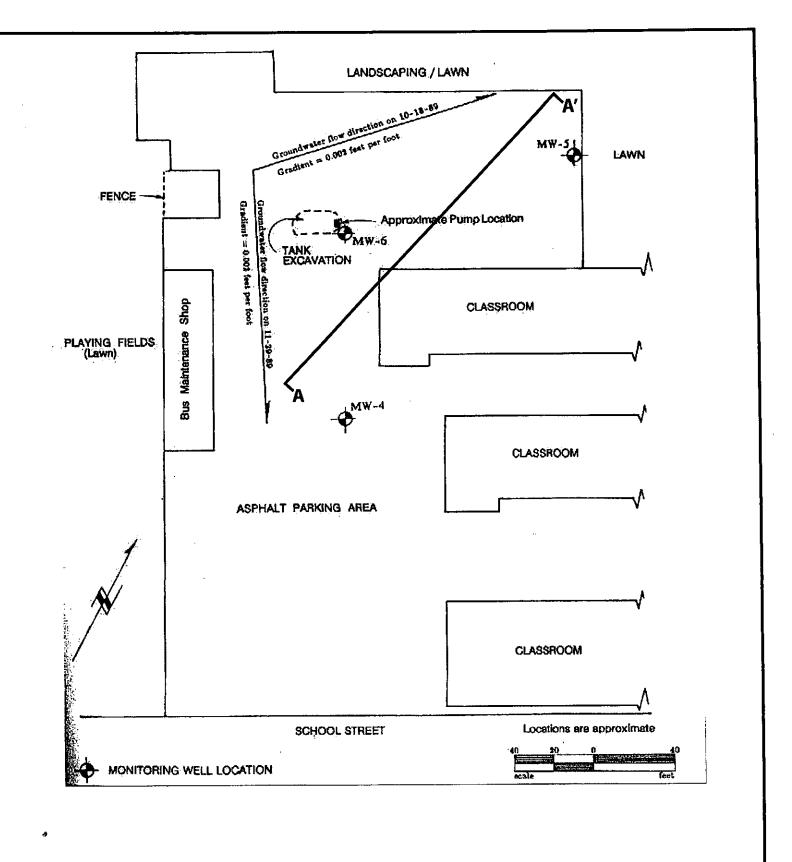
Mr. David Charter SWRCB Cleanup Fund P.O. Box 944212 Sacramento, CA 94244-2120

GGA File

## **PLATES**

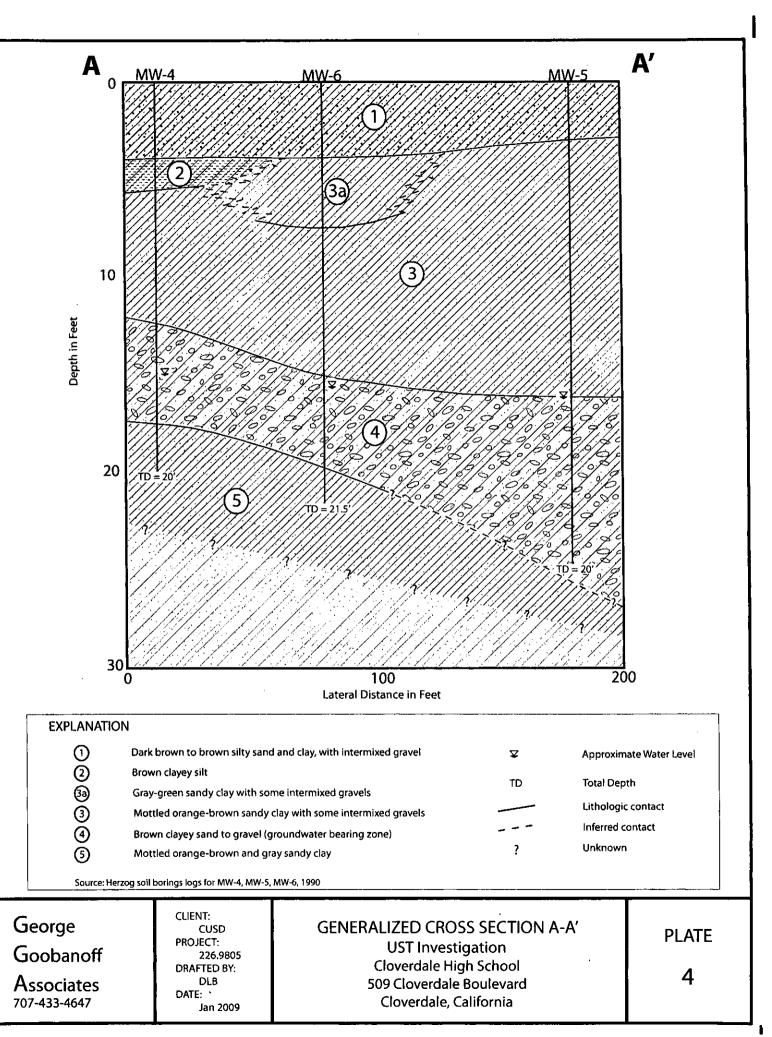


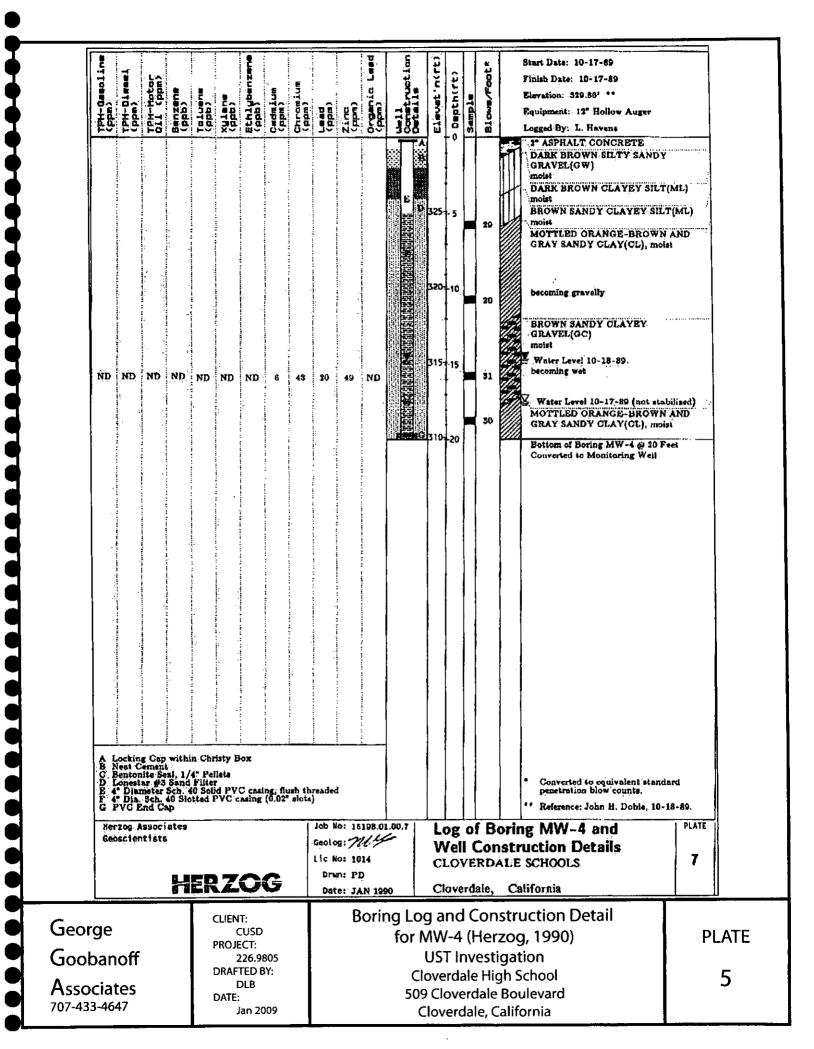


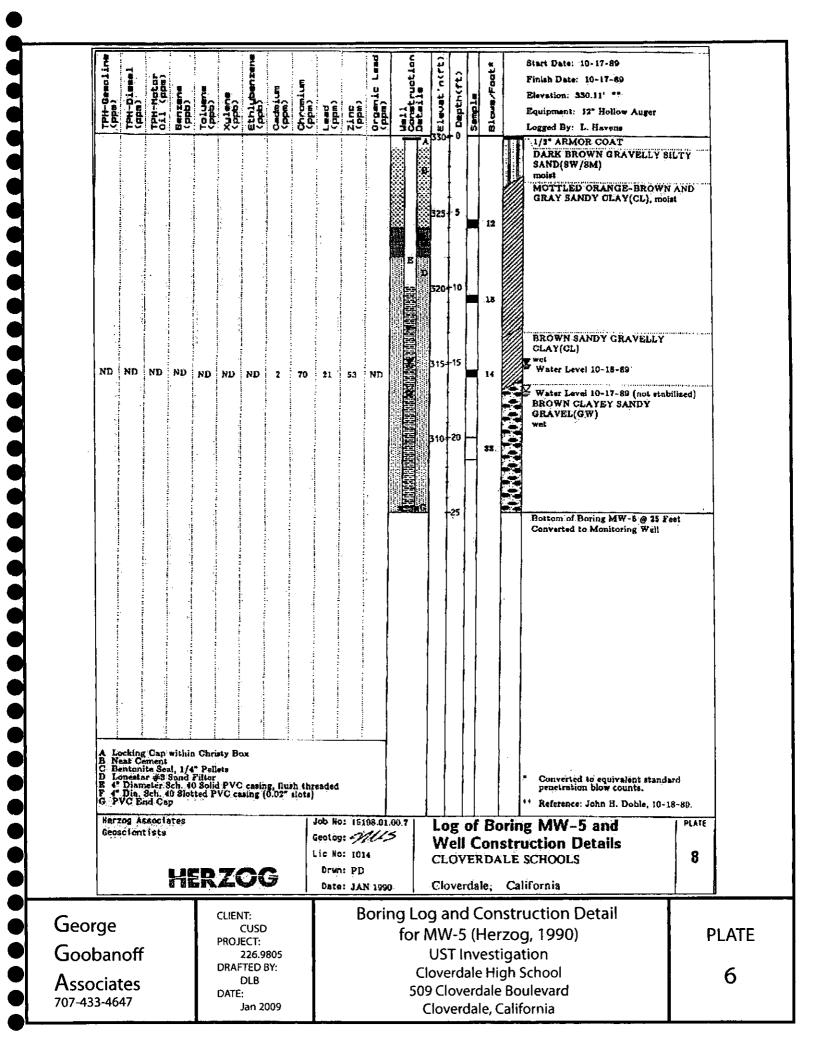


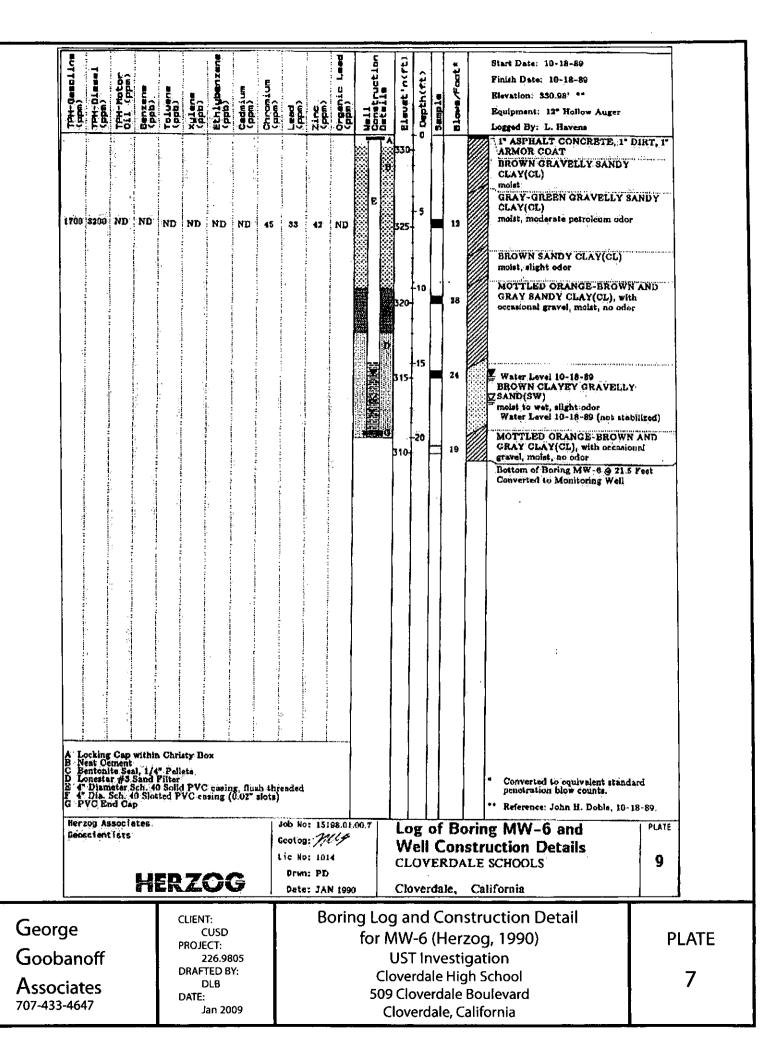
SOURCE: Herzog, Plate 3, 1990

PREVIOUS SITE MAP WITH CLIENT: George **CUSD PLATE CROSS SECTION A-A'** PROJECT: Goobanoff **UST Investigation** 226.9805 DRAFTED BY: 3 Cloverdale High School **Associates** OLB 509 Cloverdale Boulevard DATE: 707-433-4647 Jan 2009 Cloverdale, California









## **SITE PHOTOS**

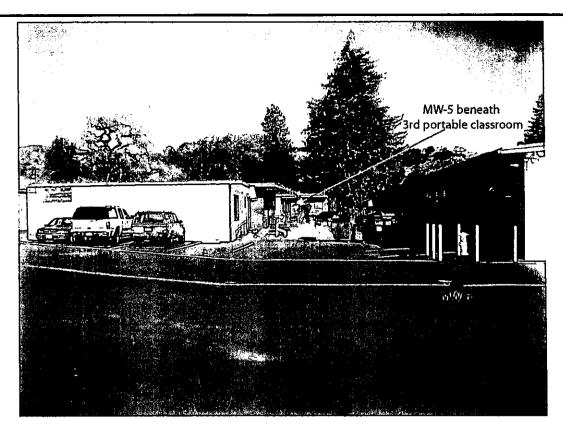


Photo 1: View looking east from area of former UST's on site. Monitoring well MW-6 shown in foreground as delineated. Also shown are the portable classrooms buildings that cover monitoring well MW-5.

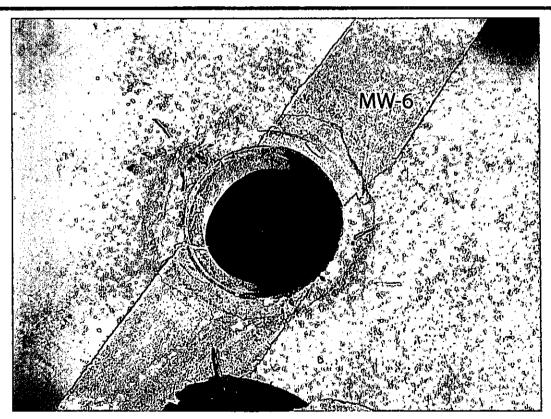


Photo 2: View looking at monitoring well MW-6. 4-inch locking well cap was intact, annular space was dry, and Christy box and well casing appeared to be in good repair. GGA replaced 4-inch locking well cap during our site visit on 1-28-09.

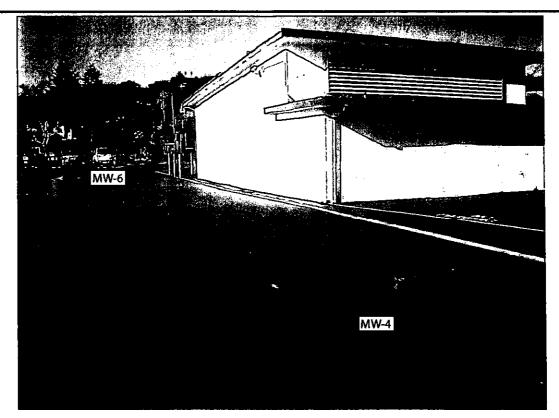


Photo 3: View looking northeast. Presumed location of MW-4 shown in foreground. Location of monitoring well MW-6 shown in background.

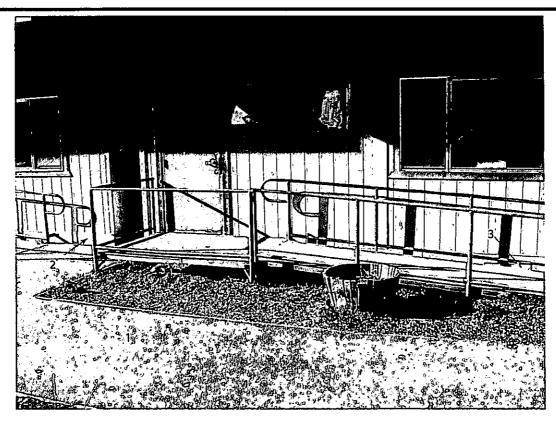
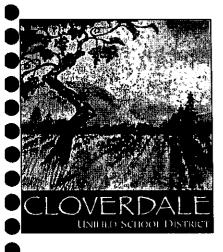


Photo 4: View looking at third portable classroom building from former UST area where MW-5 is presumed to be located. Arrow 1 shows the 95 ft measurement from the northwest corner of the northernmost permanent classroom building. Arrow 2 shows the one foot, permanent panelled dry space beneath the portables.

Arrow 3 shows a vent in the permanent paneling.

## **CUSD LETTER TO SCEHD**

October 23, 2008



BOARD OF TRUSTEES
JOANNE ARGYRES
STEVE BARROW
DANIEL BUNTING
DICK JOHNSON
RITA ROBINSON

October 23, 2008

Darcy Bering
Registered Environmental Health Specialist
Sonoma County Department of Health Services - Environmental Health Division
475 Aviation Blvd. Suite #220
Santa Rosa, CA 95403

Subject: Response to Annual Review and Status of MW-5

Dear Ms. Bering:

I would like to summarize the Cloverdale Unified School District's (CUSD) information and plans regarding the location and possible abandonment of monitoring well 5 (MW-5) at the Cloverdale High School site.

Our current environmental consultants and their subcontractors have submitted reports to CUSD stating that the available reports and location maps for the well in question are not completely accurate and that locations of the other known wells are off numerous feet in multiple directions, compared to the reports. The most likely location of the well places it directly underneath a portable classroom located on the north end of the Cloverdale High School campus.

There are portable classrooms located immediately to the west and east of the portable in question. Furthermore, a main permanent wing of rooms is located just a few feet to the south, and another building is located to the north. It is our understanding that to access the soils above the well, multiple buildings would need to be moved, and if the location is off a few feet to the west or east, another building would have to be displaced.

All of the rooms surrounding the portable that is likely over the well, and that portable itself, are utilized throughout the normal school year and for various summer programs as well. The district currently has no plans to discontinue use or move the portable in question or any surrounding it. Additionally, as you might surmise at this time, the

District does not have the funds to move multiple buildings, and available extra rooms needed for the displaced classes do not exist on the Cloverdale High School campus.

In summary, CUSD currently utilizes the portable likely over MW-5, and the surrounding buildings in all directions. There are no plans for current or future movement or discontinued use of those buildings. Lastly, CUSD does not currently have the funding, or physical resources to implement a multiple classroom displacement and relocation.

We hope that this information will assist you in your processing of this site for closure. If you have any questions, please feel free to contact me at 707-894-1920. Thank you for your patience in this matter.

Sincerely,

Claudia Rosatti Claudia Rosatti Superintendent

Cloverdale Unified School District

# GGA E-MAIL CORRESPONDENCE LETTER NORCAL GEOPHYSICAL

September 6 & 11, 2006

This message is not flagged. [ Flag Message - Mark as Unread ]

From: "Ken Blom" <kblom@norcalgeophysical.com> 👸 Add to Address Book 🖟 Add Mobile Alert

To: "David Bush" <bushenvironment@yahoo.com>

Subject: Re: Request for Assessment

Date: Mon, 11 Sep 2006 12:31:17 -0700

#### David:

When using geophysical methods to locate wells, full access over the area of investigation is required. Any objects such as parked cars, debris, buildings, etc. on top of, or in close proximity to, do not allow for the required access. Additionally, such objects cause instrumental interference and unreliable data. Therefore, we conclude that the well in question under a portable building can not be reliably investigated using ground penetrating radar and electromagnetic geophysical instrumentation.

Please let me know if you need additional information.

Kenneth Blom, PG, PGp Principal Geophysicist NORCAL Geophysical Consultants, Inc. 321 Blodgett Street Cotati, CA 94931 707/796-7170; fax 707/796-7175

----- Original Message -----

From: David Bush

To: kblom@norcalgeo.com

Cc: Marc Seeley; George Goobanoff

Sent: Thursday, September 07, 2006 6:15 PM

Subject: Request for Assessment

George Goobanoff Associates
Environmental Health & Safety Management
218 Burgundy Road
Healdsburg, CA 94558
tel/fax 707-433-4647

Dear Mr. Blom:

Per our conversation I am requesting that you submit a brief written assessment regarding the following issue.

We are in the process of abandoning monitoring wells in accordance with requirements of the Sonoma County Environmental Health Division (SCEHD) at the Cloverdale High School project in Cloverdale, California. We have located two of the three wells on the site, but the third well is presumably located beneath a portable classroom on the project site.

In accordance with the SCEHD requirements it is our responsibility to determine the location of this third well. However, in our opinion, without the relocation of the portable classroom, it would be nearly impossible to obtain the well location.

We request your professional assessment of the likelihood of conducting a geophysical survey of the well with the portable classroom in place. Please formulate your opinion and respond via e-mail.

Thank you very much for your time. If you have any questions please feel free to call me at 707-953-1020.

David L. Bush

## GGA E-MAIL CORRESPONDENCE LETTER CLEAR HEART DRILLING

January 29 & 30, 2009

#### David Bush

From:

"Terri" <terri@clearheartdrilling.com>

To:

"David Bush" <david@egsconsultants.com>

Sent:

Friday, January 30, 2009 1:32 PM

Subject:

Re: Request for Assessment

David.

After speaking to Rick Schneider, our drilling forman, we have come to the conclusion that we would not be able to destroy or pressure grout the well under the portable classroom.

Regards,

Terri White Office Manager Clear Heart Drilling, Inc. 707-568-6095 707-568-6096 fax terri@clearheartdrilling.com -----Original Message-----

From: David Bush

Date: 1/29/2009 10:03:05 AM

To: Clear Heart Drilling, pat@clearheartdrilling.com

Cc: marcseeley@juno.com

Subject: Request for Assessment

Terri & Pat:

Per our conversation I am requesting that you submit a brief written assessment regarding the following issue (e-mail correspondence will be fine).

We are in the process of preparing a letter report that documents the location of a shallow groundwater well beneath a portable classroom building at Cloverdale High School in Cloverdale, California. Prior to case closure, the Sonoma County Environmental Health Divison (SCEHD) has required that we formulate our opinion as to the possibility of abandoning this well if it were accessible via crawl space (ie by pressure grouting).

It is our opinion that it would be nearly impossible to abandon the well without the portable classroom being relocated. The school has stated that it is not going to re-locate the portable. Therefore, the only way the well could potentially be abandoned is by pressure grouting via a crawl space.

Please respond to the potential of pressure grouting a well beneath a building via a crawl space.

If you have any questions please feel free to call us at 707-528-0810. Thank you for your time,

**David Bush** 

**Project Geologist** 

Rock 3/26/91

# HERZOG

#### CLOVERDALE SCHOOLS CLOVERDALE, CALIFORNIA

43

RECHIVED

MAR 2 6 1991

# REPORT OF SUPPLEMENTAL UNDERGROUND TANK INVESTIGATIONS CLOVERDALE SCHOOLS CLOVERDALE, CALIFORNIA

Prepared for:

#### **CLOVERDALE UNIFIED SCHOOL DISTRICT**

Dr. Donald Sato, Superintendent 97 School Street Cloverdale, California 95425

Prepared by:

#### **HERZOG ASSOCIATES**

Environmental Services Division 1318 Redwood Way, Suite 200 Petaluma, California 94954 (707) 792-5600

Project Number 15198.01-01-7

Frederick Maurer, Jr.

Project Manager

Lisa Havens Staff Geologist

March 25, 1991

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HERZOG

Herzog Associates Geoscientists 1318 Redwood Way, Suite 200 Petaluma, CA 94954 Tel (707) 792-5600 Fax (707) 792-5695

March 25, 1991 Project Number 15198.01-01-7



Pe: Clowedale High School 504 Cloverdale M

Cloverdale Unified School District 97 School Street Cloverdale, California 95425

Attention: Dr. Donald Sato

RE: Report of

Supplemental Underground Tank Investigations

Cloverdale Schools Cloverdale, California

Dear Dr. Sato:

Herzog Associates (Herzog) is pleased to present this report of our supplemental underground tank investigations at Washington Street Elementary School and Cloverdale High School in Cloverdale, California. The purpose of our investigations was to evaluate the extent of subsurface soil contamination which may have resulted from previously removed underground petroleum storage tanks at the two sites.

Analytical results of soil samples collected at the two sites during this investigation indicate the following:

Washington Elementary - Analytical results of the two soil samples collected from boring B-1 (WE), which was drilled adjacent to the existing monitoring well MW-2 on Plate 2, indicated motor oil concentrations to be below analytical method detection limits. Furthermore, no other petroleum hydrocarbon compounds analyzed were detected in either of the soil samples.

Cloverdale High - Low levels of Total Petroleum Hydrocarbons as diesel were detected in the soil sample from B-2 on Plate 4 at 16.0 feet. No other petroleum hydrocarbon compounds were detected in that sample nor in any of the other soil samples analyzed.

The attached report presents disposal and/or remedial options for the spoils stockpile of the previous tank excavations as well as drilling spoils and well development and purge water from previous and current investigations at the two sites. Recommendations for remediation of subsurface soils in the vicinity of the removed underground storage tanks at Cloverdale High are also discussed.

We are continuing to perform monthly groundwater monitoring and quarterly groundwater sampling of the three existing wells at each site. An upcoming quarterly sampling report will be sent under separate cover.

If you have any questions regarding this project or the work performed, please do not hesitate to call either of the undersigned at (707) 792-5600. It has been a pleasure to be of service to you.

Yours very truly,

**HERZOG ASSOCIATES** 

Environmental Services Division

Frederick Maurer, Jr.

Project Manager

Lisa A. Havens Staff Geologist

QA/QC Review: Marc W. Seeley

FM:LAH:ts (7809.09)

Attachment:

Report (3)



cc: Ms. Susan Warner
North Coast Regional Water Quality Control Board
1440 Guerneville Road
Santa Rosa, CA 95403

Mr. Mark Sullivan Sonoma County Hazardous Materials Management Program 2435 Professional Drive, Suite A Santa Rosa, CA 95403

Ms. Constance Stavros Sonoma County Hazardous Materials Management Program 2435 Professional Drive, Suite A Santa Rosa, California 95403



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Plate 2 Site Plan, Washington Street Elementary School

Plate 3 Log of Boring B-1 (WE) at Washington Elementary

Plate 4 Site Plan, Cloverdale High School

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Plate 10 Unified Soil Classification Chart

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Appendix A - Chain-of-custody forms

NET Chemical Analytical Results



#### INTRODUCTION

This report presents the results and methods of Herzog Associate's (Herzog's) soil investigations at Washington Street Elementary School and Cloverdale High School of the Cloverdale Unified School District in Cloverdale, California (see Plate 1, Location Map). The work was performed in accordance with the terms of our Professional Services Agreement dated August 3, 1990 and our Work Plan dated November 19, 1990. The Work Plan was reviewed and approved by the Sonoma County Hazardous Materials Management Program (Hazmat) prior to implementation.

The objectives of this project were to:

- drill and sample one soil boring adjacent to the existing well MW-2 at Washington Elementary to re-evaluate the 38 parts per million (ppm) of motor oil previously detected in the 10 foot soil sample collected from the well boring;
- 2) drill and sample five soil borings in the vicinity of the removed underground tank at Cloverdale High School to evaluate the extent of hydrocarbons in site soils;
- 3) chemically analyze discrete samples of soil collected at selected locations beneath the subject sites to evaluate whether they contain gasoline, diesel, motor oil, or lead constituents;
- 4) evaluate disposal and/or remedial options for the spoils produced during original tank removal as well as the soil and groundwater wastes produced during drilling and sampling operations at the site;
- 5) evaluate remedial options for the soil contamination at Cloverdale High in the vicinity of the removed underground storage tanks;
- 6) evaluate the information obtained and prepare this report.



#### **BACKGROUND**

Herzog Associates previously drilled, installed and sampled 6 groundwater monitoring wells at Washington Street Elementary School and Cloverdale High School (3 at each site). The purpose of that work was to evaluate the potential for subsurface soil and/or groundwater contamination to have resulted from possible leakage of underground fuel storage tanks formerly located at the sites. The results of our work, which was presented in our report dated January 22, 1990, indicated the following:

Washington Elementary - Three groundwater monitoring wells (MW-1, MW-2, and MW-3) were installed at this site (see Plate 2, Site Plan of Washington Street Elementary School). Total petroleum hydrocarbons (TPH) as motor oil was detected at 38 parts per million (ppm) in the soil sample from boring/well MW-2 at 10.0 feet. Analysis of the groundwater sample from that well indicated 0.02 ppm of cadmium, which exceeds the California Department of Health Services (DHS) Maximum Contaminant Level (MCL) of 0.01 ppm for cadmium in drinking water. No other petroleum analytes were detected in soil or water samples collected from this site. Apparent background levels of selected metals were detected in the soil samples from this site.

Cloverdale High - Three groundwater monitoring wells (MW-4, MW-5, and MW-6) were installed at this site (see Plate 4, Site Plan of Cloverdale High). TPH as gasoline at 1,700 ppm and TPH as diesel at 3,200 ppm were detected in the soil sample from boring/well MW-6 at 5.5 feet. Analysis of the groundwater sample from that well indicated 1.3 ppm of gasoline and 7.4 ppm of diesel, as well as 0.11 ppm of chromium, which exceeds the DHS MCL of 0.05 ppm for chromium in drinking water. Apparent background levels of selected metals were also detected in the soil samples from this site.

Soils Pile - Two soil samples were collected from the excavation spoils pile previously generated during excavation and removal of the underground tanks at the two sites. The samples were composited and analyzed. Results indicated TPH concentrations as high as 150 ppm of motor oil.



The North Coast Regional Water Quality Control Board (Board) and Hazmat requested additional investigation to evaluate the extent of hydrocarbons in soils at the two sites, as well as implementation of a groundwater monitoring program at each site. This report present the results of the soils evaluation. Groundwater data collected at the sites for the monitoring program will be submitted quarterly under separate cover.

#### INVESTIGATION METHODS AND FIELD PROCEDURES

#### **Drilling**

A total of six soil borings were drilled for the Cloverdale Unified School District. One boring, B-1 (WE), was drilled at Washington Street Elementary School (see Plate 2, Site Plan of Washington Street Elementary School for the boring location). Five soil borings were drilled at Cloverdale High School: B-1 (CH), B-2, B-3, B-4, and B-5 (see Plate 4, Site Plan of Cloverdale High).

The soil borings were drilled by Weeks Drilling and Pump Company (Weeks) of Sebastopol, California on January 2, 1991. Weeks used a Mobile Drill B-53 auger drill rig equipped with 8-inch outer-diameter hollow-stem augers. The boreholes were drilled with clean auger flights. Auger flights were cleaned between borings by steam cleaning on site.

Washington Elementary - Boring B-1 (WE) was drilled at Washington Elementary to a depth of approximately 11.0 feet (see boring log, Plate 3). The boring was located within 5 feet of the existing well MW-2. The purpose of the boring was to re-evaluate the detection of 38 parts per million (ppm) of motor oil previously reported in a 10 foot soil sample collected from the well boring of MW-2.

Cloverdale High - Borings B-1 (CH), B-2, B-3, B-4, and B-5 were drilled by Weeks at Cloverdale High on the same date. The borings were drilled to depths of approximately 16.5 feet below ground surface (the approximate level of the soil-groundwater interface at the site at the time of drilling). The purpose of these borings was to evaluate the vertical and lateral extent of petroleum compounds in soils in the vicinity of the previously removed tanks. Boring logs are presented on Plates 5 through 9, respectively.



#### **Soil Sampling**

Concurrent with drilling operations, subsurface soil samples were obtained at approximately 5 foot intervals throughout the depths of the borings. Samples were obtained with a Modified California Sampler equipped with six-inch long stainless steel or brass liners ("sample tubes"). The sampler and liners were pre-cleaned prior to use and between uses by washing them with trisodium phosphate (TSP) mixed with potable water, followed by a potable water rinse, and finally a distilled water rinse.

The subsurface soil samples were obtained by drilling approximately five feet, then driving the sampler eighteen inches into undisturbed material. The middle tube of the drive sampler was generally retained for possible analysis. The sample tube ends were covered with aluminum foil, and pre-cleaned plastic caps were <u>taped</u> to the ends of the tubes. The samples were then labeled, sealed in plastic bags, and stored in an ice-filled cooler.

The samples were transported to National Environmental Testing Laboratory (NET) of Santa Rosa, California, and placed in refrigerated storage. Chain-of-custody protocol was maintained; forms are attached in Appendix A.

The soil cuttings and drive samples were logged by a Herzog geologist during drilling operations. The soils are described on the boring logs in accordance with the Unified Soil Classification System, presented on Plate 10. Soil cuttings were stored on site in covered 55-gallon drums pending the results of soil chemical analyses.

The following soil samples were submitted to NET for analysis: B-1 (WE) at 5.5 and 10.5 feet, B-1 (CH) at 5.5 and 10.5 feet, B-2 at 5.5 and 16.0 feet, B-3 at 5.5 and 16.0 feet, B-4 at 10.5 and 16.0 feet, and B-5 at 10.5 and 16.0 feet. The soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline, as diesel and as motor oil, and benzene, toluene, xylenes, and ethylbenzene (BTXE). The samples collected at Cloverdale High were also analyzed for total lead.



#### **ANALYTICAL RESULTS**

The results of our analytical program are presented below on Table 1, Summary of Analytical Results. The samples were analyzed by NET in their Santa Rosa laboratory. Copies of the NET laboratory analytical reports are presented in Appendix A.

#### Washington Elementary

The results of soil chemical analyses for B-1 (WE) at Washington Street Elementary School indicate less than detectable concentrations of all petroleum hydrocarbon constituents analyzed in the two samples collected.

#### Cloverdale High

The results of soil chemical analyses for Cloverdale High School indicate a TPH as diesel concentration of 32 ppm in the sample from B-2 at 16.0 feet. No other petroleum hydrocarbon constituents were detected in any of the other samples analyzed. Total lead levels in the samples analyzed ranged from 3.1 to 5.8 ppm (see Table 1).



Table 1 - Summary of Analytical Results

1	TPH- gas <u>ppm</u>	TPH- diesel <u>ppm</u>	TPH- motor oil ppm	Benzene ppb	Toluene	Xylene ppb	Ethyl- benzene ppb	Total Lead ppm		
Washington Elementary										
B-1(WE) at 5.5'	ND	ND	ND	ND	ND	ND	ND	NΤ		
B-1(WE) at 10.5'	ND	ND	ND	ND	ND	ND	ND	NT		
Cloverdale High										
B-1(CH) at 5.5'	ND	ND	ND	ND	ND	ND	ND	4.1		
B-1(CH) at 10.5'	ND	ND	ND	ND	ND	ND	ND	3.8		
B-2 at 5.5'	ND	ND	ND	ND	ND	ND	ND	5.8		
B-2 at 16.0"	ND	32	ND	ND	ND	ND	ND	4.3		
B-3 at 5.5'	ND	ND	ND	ND	ND	ND	ND	3.1		
B-3 at 16.0'	ND	ND	ND	ND	ND	ND	ND	3.5		
B-4 at 10.5'	ND	ND	ND	ND	ND	ND	ND	4.2		
B-4 at 16.0'	ND	ND	ND	ND	ND	ND	ND	4.6		
B-5 at 10.5'	ND	ND	ND	ND	ND	ND	ND	5.0		
B-5 at 16.0'	ND	ND	ND	ND	ND	ND	ND	3.8		

ND = Not Detected NT = Not Tested ppm = parts per million

ppm = parts per million
ppb = parts per billion

#### CONCLUSIONS AND RECOMMENDATIONS

#### Washington Elementary

TPH as motor oil was not detected in soil samples collected from 5.5 and 10.5 feet in boring B-1 (WE) which was drilled within approximately 5 feet of the existing well MW-2. The purpose of the boring was to evaluate the existence of motor oil previously detected in the soil sample from MW-2 at 10 feet. Since no motor oil was detected in the boring adjacent to the well, it appears that the detection of motor oil in the previous sample resulted from introduced contamination during drilling and sampling operations. This was previously concluded in our January 22, 1990 report.

Herzog is currently performing a groundwater monitoring and sampling program at this site. The results of this work will be submitted quarterly under separate cover. If, after a year (one hydrologic cycle) of monitoring and analysis, there are no detectable petroleum hydrocarbon compounds in the groundwater, the wells should be abandoned per state regulations, and no further work at the site would be warranted.

#### Cloverdale High

A concentration of 32 ppm of TPH as diesel was detected in boring B-2 at 16.0 feet. No other petroleum hydrocarbon constituents were detected in that sample or in any of the other samples analyzed during this investigation. The petroleum hydrocarbon compounds in site soils appear to be very limited in extent, and appear to be localized in the immediate vicinity of the previous tank and pump. The soils in the tank vicinity are heterogeneous in nature. Uniform, consistent, horizontal layers of pervious soils were not encountered. Therefore, significant lateral migration of the petroleum hydrocarbons evidently did not occur.

The very low levels of total petroleum hydrocarbons (less than 10 ppm) previously detected in groundwater collected from well MW-6, immediately downgradient from the tanks, and non-detectable levels of TPH as gasoline in wells MW-4 and MW-5 and of BTXE constituents in all site wells, suggest minimal impact to site groundwater from former underground storage of petroleum products. However, petroleum hydrocarbon compounds were previously detected in soil from boring/well MW-6 at relatively high concentrations. It is apparent that the low concentrations of



Page 8

Should strongto to

petroleum hydrocarbons in water samples from MW-6 are a result of the direct contact of the groundwater with the contaminated soils. Herzog recommends excavation of the contaminated soils to below 100 parts per million. However, we recommend that the excavation not be performed until four quarters of well monitoring are completed. As long as concentrations of petroleum hydrocarbons in groundwater remain low throughout the monitoring, MW-6 can likely be abandoned at the time of excavation.

Removal and/or remediation of any excavation spoils (along with spoils from the original tank excavations of the two sites and the drilling spoils from MW-6, and B-2) should be performed in accordance with regulatory requirements. Remedial recommendations are discussed in the following section.

The North Coast Regional Water Quality Control Board (Board) should not require groundwater treatment after soil removal, since very low concentrations of petroleum hydrocarbons have been detected in the groundwater immediately downgradient of the tank. By natural dispersion and biodegradation, these low levels should become insignificant after the soil has been remediated. After the Board and Hazmat have reviewed this report and provided comments, Herzog can prepare a Work Plan for remediation if so requested by the school district.

# **DISPOSAL/REMEDIAL OPTIONS**

Presented below are options for disposal and/or remediation of excavation and drilling spoils generated at the two sites during the underground tank removals and subsequent investigations. These recommendations can also be used for disposal of future excavation spoils in the area of the Cloverdale underground tanks.

Soil Drums - At least one 55-gallon drum was filled with drill cuttings from each respective borehole during drilling and/or well installation operations. Analyses of soil samples from boring/well MW-2 (at Washington Elementary) and MW-6 and B-2 at Cloverdale High detected varying levels of petroleum hydrocarbon compounds. Motor oil detected in well MW-2 was likely introduced during drilling operations and is likely not representative of the subsurface site soils. Well MW-6, however, contained elevated levels of petroleum compounds, and low levels of diesel were detected in boring B-2.



The soil drums from well MW-6 and B-2 from Cloverdale High will need to be remediated and/or disposed of at an approved facility. The soil samples from the remaining wells (MW-1, MW-3, MW-4, and MW-5) and other soil borings were not found to contain petroleum compounds, and can be disposed of on site once approved by the Board and Hazmat.

<u>Waste Water Drums</u> - At least one 55-gallon drum has been filled with well development and purge water from each respective well since installation. Waste water was also produced during equipment and auger decontamination and is contained in 55-gallon drums on site. Analytical results of well water from five of the six wells indicates petroleum compounds to be below analytical method detection limits. The groundwater sample from MW-6 at Cloverdale High was found to contain 1.3 parts per million (ppm) of TPH as gasoline and 7.4 ppm of TPH as diesel.

The water from the five clean wells, and from decontamination activities at Washington Elementary, can be discharged to the ground surface in landscaped areas, once approved by the Board and Hazmat. The water from well MW-6, however, and from decontamination activities at Cloverdale High, will need to be appropriately disposed. Since detected TPH levels are below 10 ppm, it is possible that the City of Cloverdale Sanitation Department will allow disposal of the contents of these drums in the city sewage disposal system.

<u>Soil Removal - Cloverdale High</u> - The Board and Hazmat will likely require excavation and removal of contaminated soils in the vicinity of the former Cloverdale High underground storage tanks. It is estimated, based on the soil borings drilled in this investigation, that approximately 500 to 1000 cubic yards (yd³) will need to be removed. Herzog recommends completion of one full hydrologic cycle of monitoring of site wells prior to soil excavation and removal.

At the time of soil excavation and removal, the spoils pile from the original tank excavation should also be removed. The spoils should remain covered with Visqueen, or other appropriate plastic sheeting until that time. The drummed cuttings from MW-6 and B-2 should also be removed at the time of excavation.



<u>Soil Disposal</u> - The following soil waste generated at the site will need to be disposed of:

- o Drill cuttings from well MW-6 (3 to 5 55-gallon drums)
- o Drill cuttings from boring B-2 (1 to 2 55-gallon drums)
- o Spoils pile from original tank removal (approximately 15 cubic yards)
- o Excavation spoils from site soil remediation efforts (approximately 500 to 1000 cubic yards, estimated)

By the time excavation has been completed, and the stockpiled materials and drummed cuttings have been added to the excavated soil, average stockpile TPH concentrations will probably be well below 1000 parts per million (ppm). This should be confirmed by stockpile sampling and analyses. Soils with TPH concentrations below 1000 ppm are not considered a hazardous waste. Therefore, this material can be handled in either of the following ways:

- 1) Haul off-site to a Class II landfill, or
- Bioremediate on site, then either use to backfill the excavation or dispose of at a Class III landfill.

Option 1 above is a costly alternative. The nearest Class II landfill is located in Mc Kittrick, California (near Bakersfield). Transport alone to a Class II landfill would be expensive, so this will probably not be the most cost-effective alternative. Option 2, bioremediation, is considered a cost-effective option if the volume of contaminated material is estimated to be 500 cubic yards or more.

## **SOIL REMEDIATION**

Remedial options for the soil contamination were discussed with two Bay Area remedial contractors. Mr. Scott Clark of Cytoculture in Point Richmond and Mr. Bill Woods of Emcon Associates in San Jose were interviewed independently to assist in the



evaluation of remedial alternatives for the contaminated material. The following site conditions were discussed prior to their recommendations:

- o Soil contamination appears localized in the immediate vicinity of the removed underground tanks
- o Volume of contaminated soil is estimated to be approximately 1000 yd³
- o Contaminants primarily consist of TPH as gasoline to 1700 ppm and TPH as diesel to 3200 ppm
- o Inconsistent (heterogeneous) soil units were observed in the immediate tank vicinity
- o Soils in the tank vicinity consist primarily of sandy clays and clayey sands with minor gravel and silt.

This process would involve excavation of the contaminated material until concentrations below 100 parts per million (ppm) are achieved in the excavation pit. The contaminated material would then be stockpiled in a "heap" with the existing stockpiled soils and drummed cuttings. The stockpile is sampled and analyzed, and is then plumbed to facilitate injection of necessary nutrients into the pile, as well as to collect volatile constituents liberated from the soil. Nutrients, water and oxygen would be added to the soil, along with bacterial biodegradors (micro-organisms that consume petroleum compounds) to facilitate bioremediation of the material. The process is estimated to take approximately 3 to 6 months to complete. The procedure should be initiated at the start of the dry season. Contaminant levels achievable by this process are estimated to be on the order of less than 50 ppm for TPH as diesel and non-detect for TPH as gasoline.

After remediation, the material can be returned to the excavation if so approved by the Board and Hazmat. Otherwise, disposal at a Class III landfill would be necessary. Herzog recommends remediation of site soils during the school's regular summer vacation for the safety of students as well as to optimize conditions for site bioremediation.



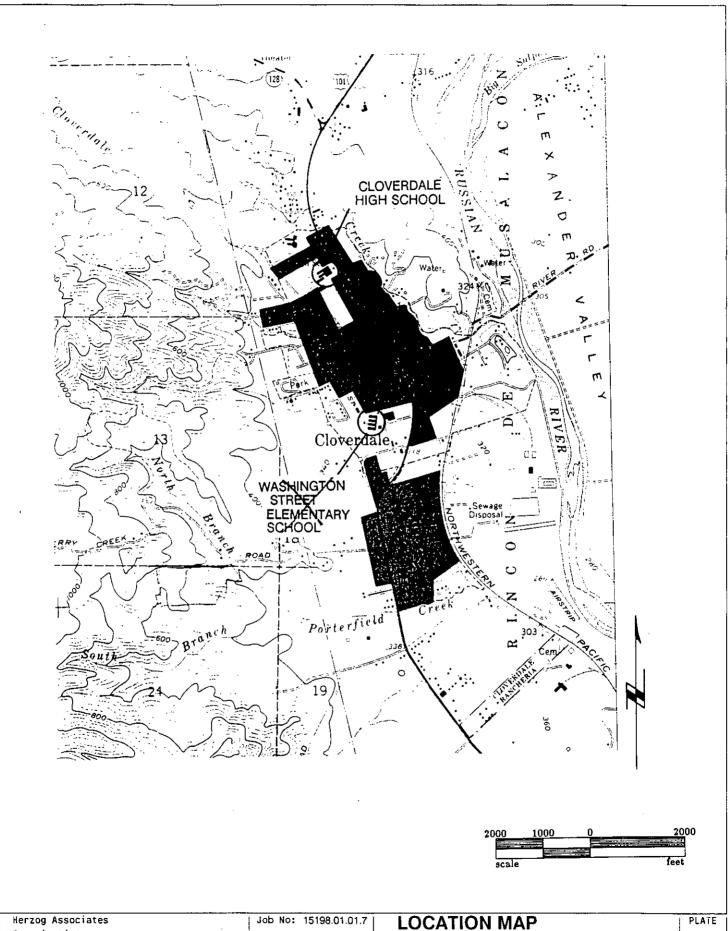
## LIMITATIONS OF LIABILITY

Services performed by Herzog have been conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession practicing in the same locality under similar conditions at the time the services were provided. No other representation, expressed or implied, and no warranty or guarantee is included or intended in this report or in any opinion, document or otherwise.

The conclusions presented by Herzog in this report are qualitative judgments based on a limited amount of quantitative testing at the sample locations selected and at the time of sampling. Conditions may be different at other sample locations and conditions can change with time. Future subsurface investigation or chemical analyses could reveal conditions different from those inferred by the limited sampling and testing performed for this investigation.

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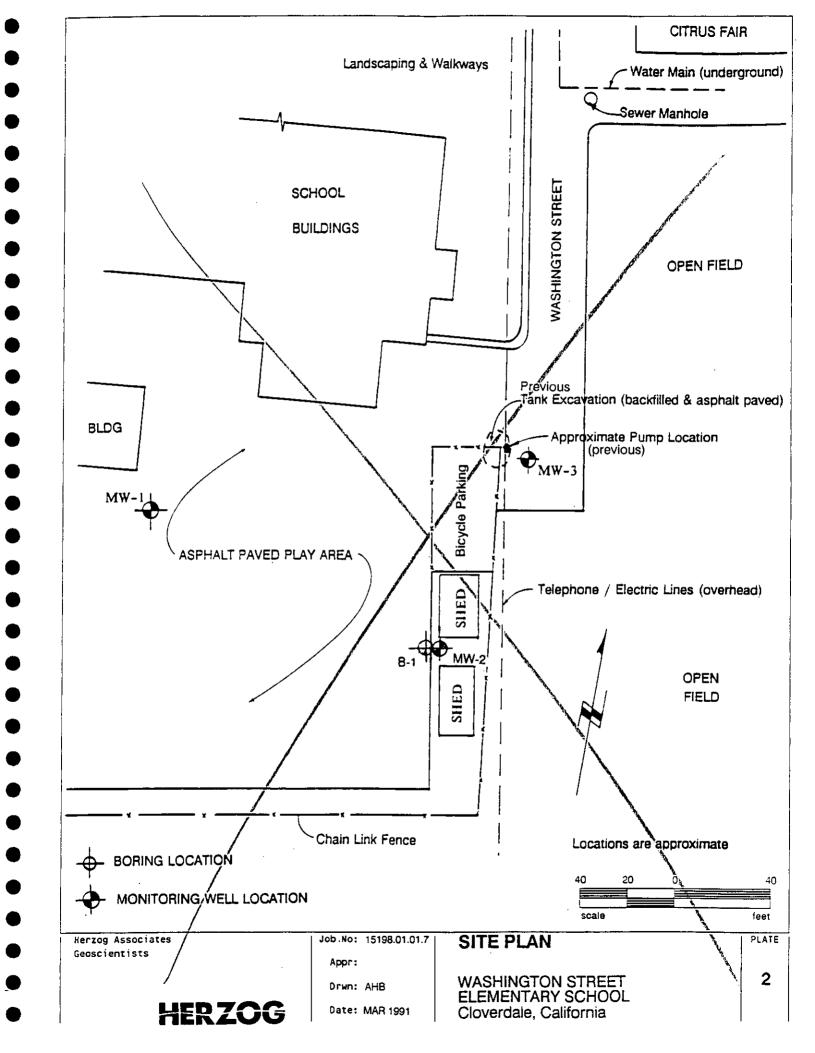
Geoscientists

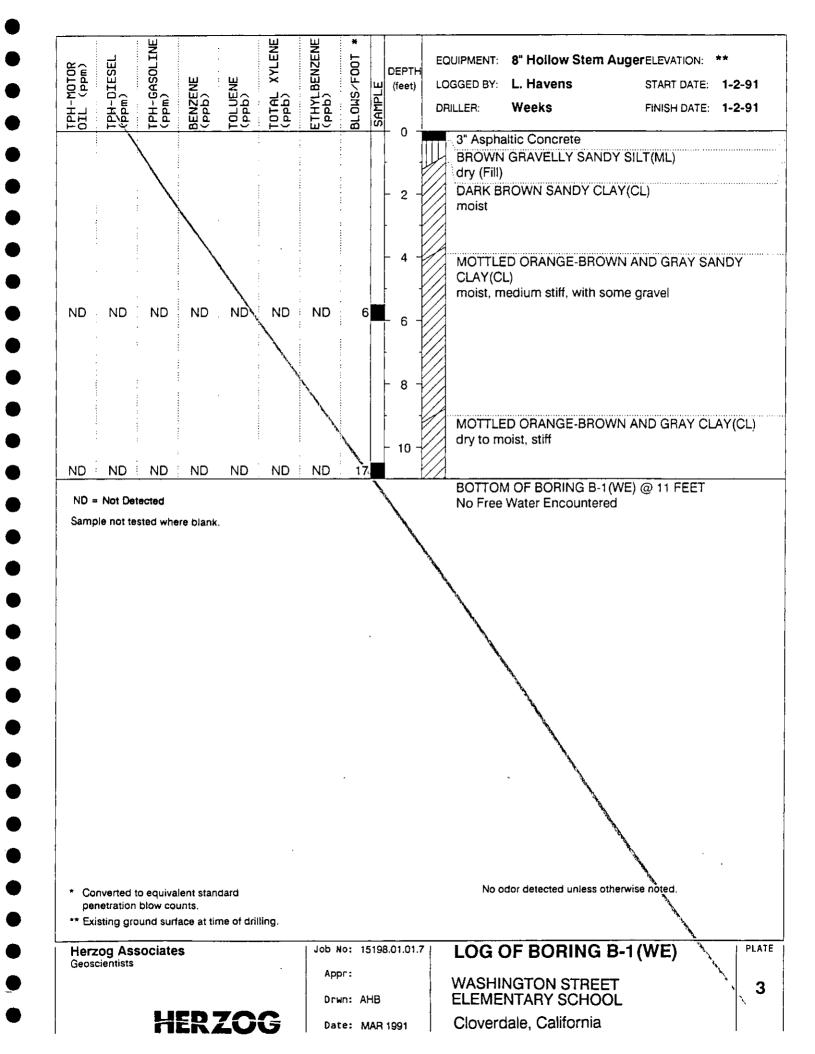
Appr: iW7 Drwn: AHB

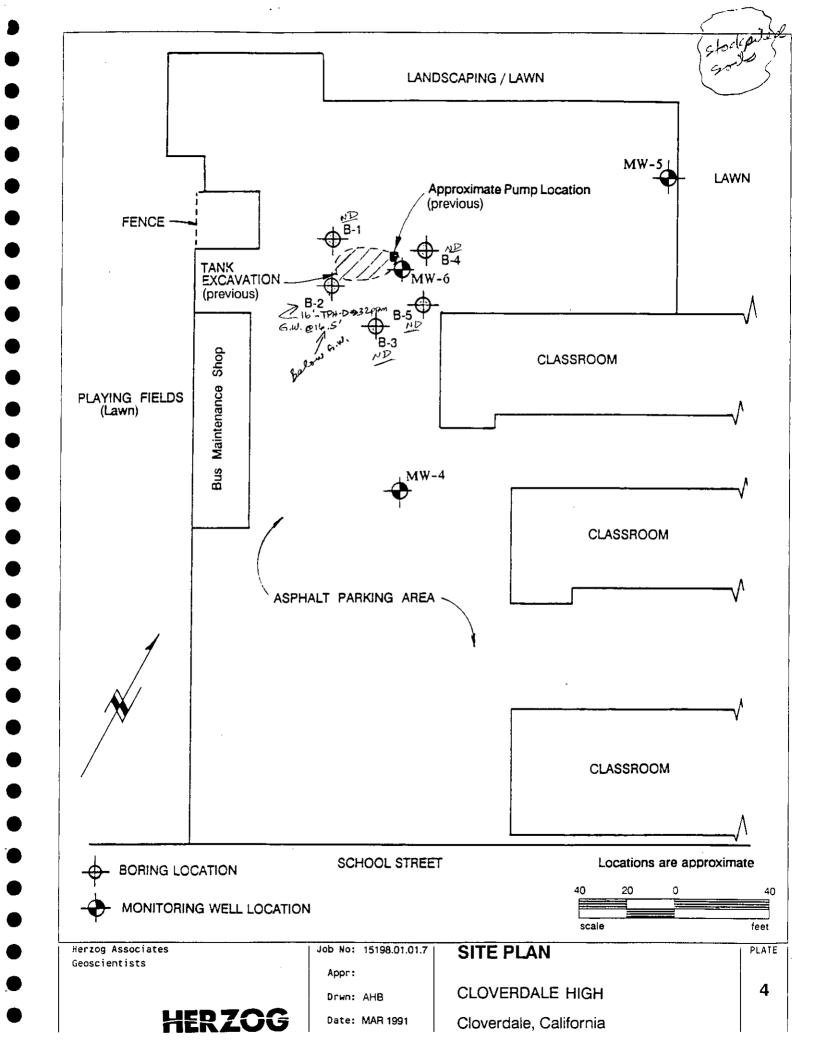
Date: MAR 1991

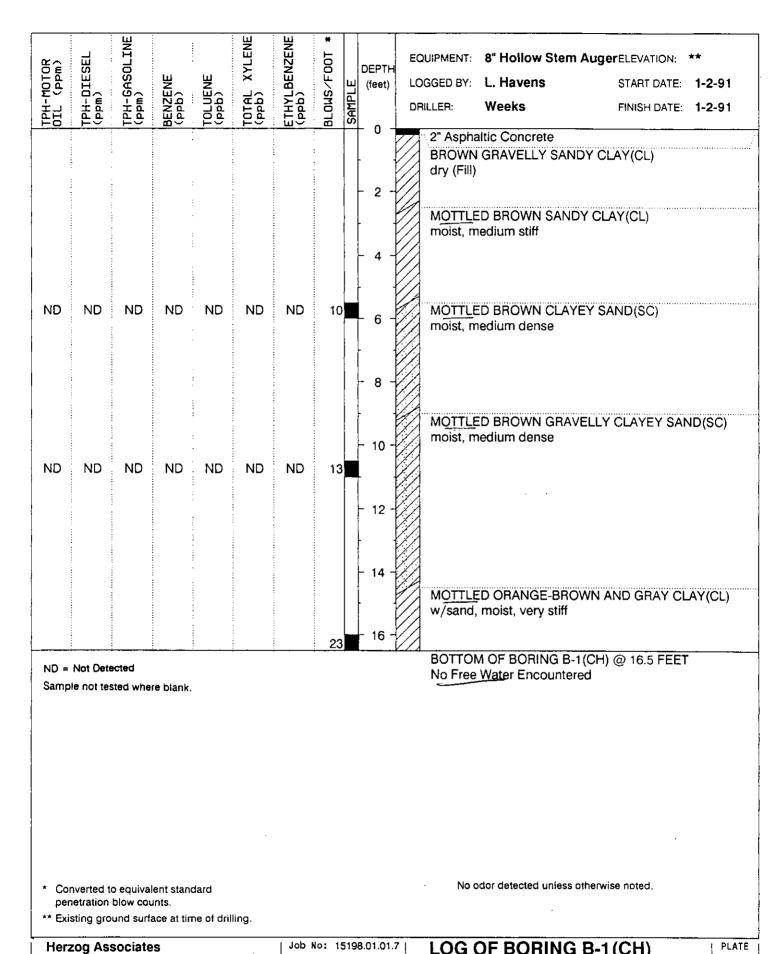
**CLOVERDALE SCHOOLS** 

Cloverdale, California









Geoscientists

Job No: 15198.01.01.7

LOG OF BORING B-1 (CH)

Appr:

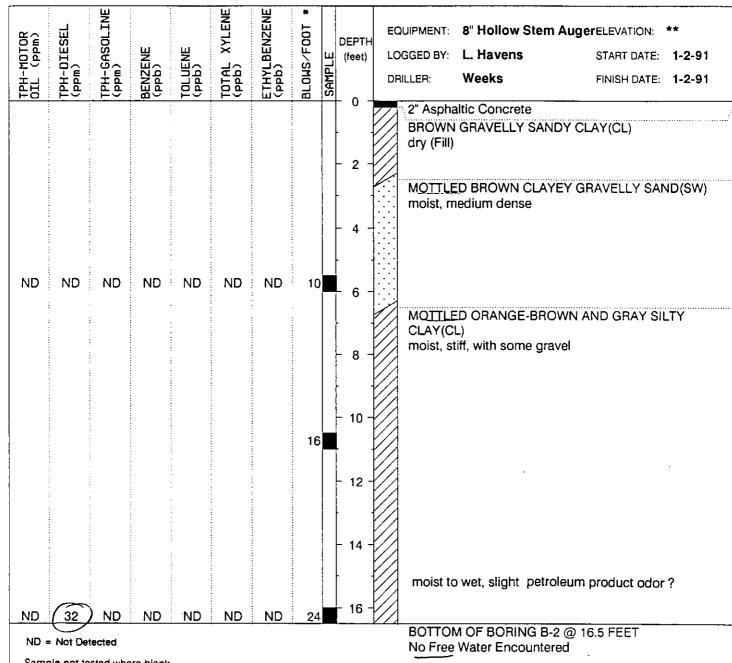
Drwn: AHB

Date: MAR 1991

CLOVERDALE HIGH

Cloverdale, California

PLATE



Sample not tested where blank.

* Converted to equivalent standard penetration blow counts.

** Existing ground surface at time of drilling.

No odor detected unless otherwise noted.

**LOG OF BORING B-2** Job No: 15198.01.01.7 **Herzog Associates** Geoscientists Appr: Drwn: AHB

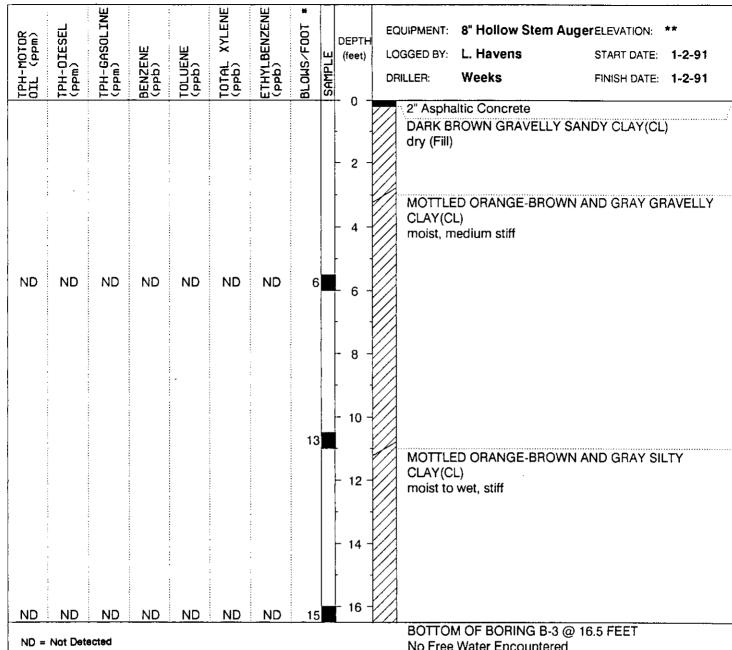
Date: MAR 1991

CLOVERDALE HIGH

6

PLATE

Cloverdale, California



Sample not tested where blank.

No Free Water Encountered

Converted to equivalent standard penetration blow counts.

** Existing ground surface at time of drilling.

No odor detected unless otherwise noted.

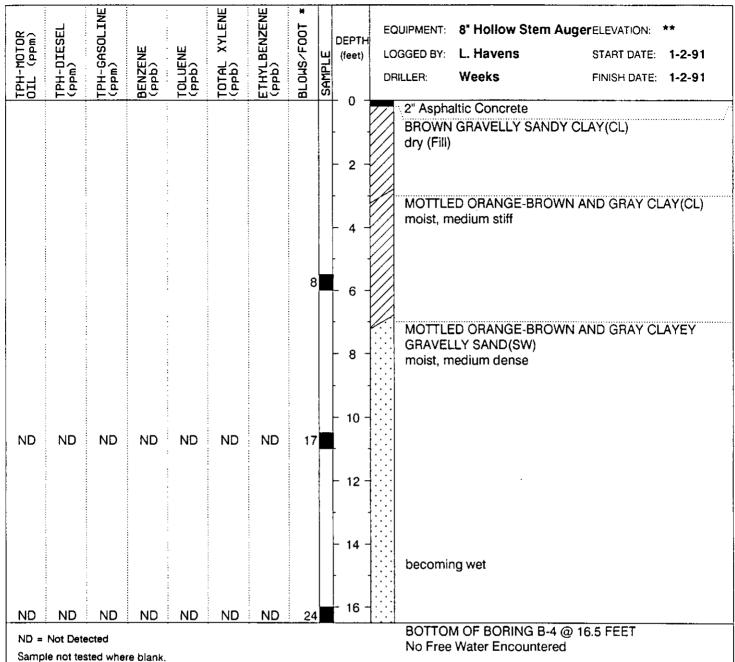
**Herzog Associates** Geoscientists

Job No: 15198.01.01.7 Appr:

**LOG OF BORING B-3** CLOVERDALE HIGH

PLATE

Drwn: AHB Cloverdale, California Date: MAR 1991



Converted to equivalent standard penetration blow counts.

**Herzog Associates** 

Geoscientists

** Existing ground surface at time of drilling.

No odor detected unless otherwise noted.

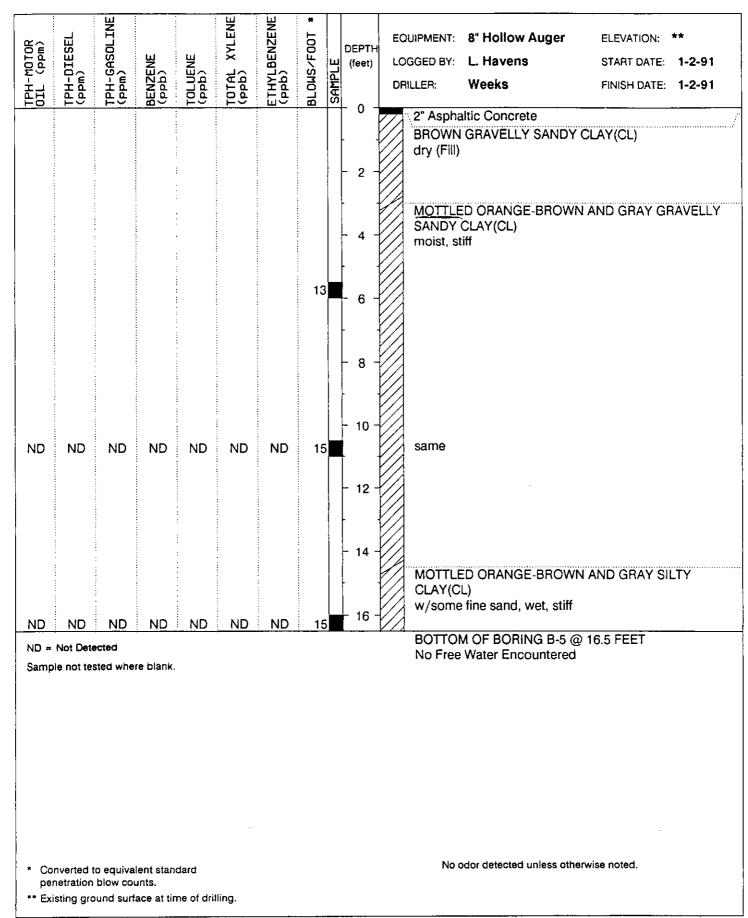
Job No: 15198.01.01.7 Appr:

Drwn: AHB Date: MAR 1991 **LOG OF BORING B-4** 

CLOVERDALE HIGH

Cloverdale, California

PLATE



**Herzog Associates** 

Geoscientists

Job No: 15198.01.01.7

Date: MAR 1991

Appr:

Drwn: AHB

**LOG OF BORING B-5** 

CLOVERDALE HIGH

Cloverdale, California

PLATE

	MAJOR DIV	SIONS		TYPICAL NAMES
	GRAVELS	CLEAN GRAVELS WITH LITTLE OR	GW -	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES
S	MORE THAN HALF	NO FINES	GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES
SOIL 200 s	COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	GRAVELS WITH	GM	SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES
GRAINED Half > #	NO. 4 SILVE	OVER 12% FINES	GC	CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES
	SANDS	CLEAN SANDS	sw∷∷	WELL GRADED SANDS, GRAVELLY SANDS
COARSE than	MORE THAN HALF	OR NO FINES	SP	POORLY GRADED SANDS, GRAVELLY SANDS
More	COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	SANDS WITH	SM	SILTY SANDS, POOORLY GRADED SAND-SILT MIXTURES
	110. 4 SIEVE	OVER 12% FINES	sc	CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
sieve	CU TO AN	ID CLAYS	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY
SOILS		LIQUID LIMIT LESS THAN 50		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
GRAI Hal				INORGANIC SILTS, MICACEOUS OR DIATOMACIOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
FINE	SILTS AND CLAYS  LIQUID LIMIT GREATER THAN 50		СН	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
More			ОН	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
	HIGHLY ORGAI	NIC SOILS	Pt 🎇	PEAT AND OTHER HIGHLY ORGANIC SOILS

UNIFIED SOIL CLASSIFICATION SYSTEM

	UNDISTURBED SAMPLE
$\boxtimes$	BULK OR DISTURBED SAMPLE
	STANDARD PENETRATION TEST
	SAMPLE ATTEMPT WITH NO RECOVERY

HED 70G

Herzog Associates

Geoscientists

Job No: 15198.01.01.7

Date: MAR 1991

**SOIL CLASSIFICATION CHART** 

PLATE

Appr:

Drwn: AHB

CLOVERDALE SCHOOLS

10

Cloverdale, California

APPENDIX A - NET Chemical Analyses Results Chain of Custody



# NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc. 435 Tesconi Circle Santa Rosa, CA 95401

Tei: (707) 526-7200 Fax: (707) 526-9623

Lisa Havens Herzog Associates 1318 Redwood Way, Ste 200 Petaluma, CA 94954 Date: 01-17-91

NET Client Acct No: 307 NET Pacific Log No: 5516 Received: 01-03-91 1535

Client Reference Information

Cloverdale School; Project: 15198.117

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack Laboratory Manager

JS:rct Enclosure(s)



@ Client No: 307

Client Name: Herzog Associates

NET Log No: 5516

Date: 01-17-91

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					<del></del>
			B-1 WE 5.5 01-02-91	B-1 WE 10.5 01-02-91	
		Reporting			
Parameter	Method	Limit	71571	71572	Units
PETROLEUM HYDROCARBONS					
VOLATILE (SOIL)					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06-91	01-04-91	
METHOD GC FID/5030					
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06-91	01-04-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND:	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS					
EXTRACTABLE (SOIL)					
DILUTION FACTOR *			1	1	
DATE EXTRACTED			01-05-91	01-05-91	
DATE ANALYZED			01-12-91	01-12-91	
METHOD GC FID/3550					
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg



client No: 307

Client Name: Herzog Associates

5516 NET Log No:

Date: 01-17-91

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			• •		
			B-1 CH 5.5 01-02-91	B-1 CH 10.5 01-02-91	
Parameter	Method	Reporting Limit	71573	71574	Units
Lead (EPA 7421)	7421	0.2	4.1	3.8	mg/Kg
PETROLEUM HYDROCARBONS					
VOLATILE (SOIL)					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-04-91	01-06-91	
METHOD GC FID/5030					
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-04-91	01-06-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS					
EXTRACTABLE (SOIL)					
DILUTION FACTOR *			1	1	
DATE EXTRACTED			01-05-91	01-05-91	
DATE ANALYZED			01-12-91	01-12-91	
METHOD GC FID/3550					
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg



® Client No: 307

Client Name: Herzog Associates NET Log No: 5516

Date: 01-17-91

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			.borrpeor, B	ab no. and ne.	
		-	B-2 5.5 01-02-91	B-2 16.0 01-02-91	
		Reporting			
Parameter	Method	Limit	71575	71576	Units
Lead (EPA 7421)	7421	0.2	5.8	4.3	mg/Kg
PETROLEUM HYDROCARBONS					
VOLATILE (SOIL)					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06-91	01-06-91	
METHOD GC FID/5030					
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06 <b>-</b> 91	01-06-91	÷
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS					
EXTRACTABLE (SOIL)					
DILUTION FACTOR *			1	1	
DATE EXTRACTED			01-05-91	01-05-91	
DATE ANALYZED			01-12-91	01-12-91	
METHOD GC FID/3550					
as Diesel		1	ND	(327)	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg



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Client Name: Herzog Associates

NET Log No: 5516

Date: 01-17-91

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			Solipedi, E	ab No. and Ne.	
			B-3 5.5 01-02-91	B-3 16.0 01-02-91	
		Reporting			
Parameter	Method	Limit	71577	71578	Units
Lead (EPA 7421)	7421	0.2	3.1	3.5	mg/Kg
PETROLEUM HYDROCARBONS					
VOLATILE (SOIL)					-
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06-91	01-06-91	
METHOD GC FID/5030					
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06-91	01-06-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS					
EXTRACTABLE (SOIL)					
DILUTION FACTOR *			1	1	
DATE EXTRACTED			01-05-91	01-05-91	
DATE ANALYZED			01-05-91	01-12-91	
METHOD GC FID/3550					
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg



@ Client No: 307

Client Name: Herzog Associates NET Log No: 5516

Date: 01-17-91

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			_		
		_	B-4 10.5 01-02-91	B-4 16.0 01-02-91	
Parameter	Method	Reporting Limit	71579	71580	Units
Lead (EPA 7421)	7421	0.2	4.2	4.6	mg/Kg
PETROLEUM HYDROCARBONS					
VOLATILE (SOIL)					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06-91	01-06-91	
METHOD GC FID/5030					
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020					5. 5
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06-91	01-06-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS					
EXTRACTABLE (SOIL)					
DILUTION FACTOR *			1	1	
DATE EXTRACTED			01-05-91	01-05-91	
DATE ANALYZED			01-12-91	01-12-91	
METHOD GC FID/3550					
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg



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NET Log No: 5516

Date: 01-17-91

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Descri	otor.	Lab	No.	and	Results

			escriptor, n	to no. and ke	
			B-5 10.5 01-02-91	B-5 16.0 01-02-91	
Parameter	Method	Reporting Limit	71581	71582	Units
Lead (EPA 7421)	7421	0.2	5.0	3.8	mg/Kg
PETROLEUM HYDROCARBONS					
VOLATILE (SOIL)					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06-91	01-06-91	
METHOD GC FID/5030					
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020					
DILUTION FACTOR *			1	1	
DATE ANALYZED			01-06-91	01-06-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS					
EXTRACTABLE (SOIL)			<del></del>		
DILUTION FACTOR *			1	1	
DATE EXTRACTED			01-05-91	01-05-91	
DATE ANALYZED			01-12-91	01-12-91	
METHOD GC FID/3550					
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg



@ Client Acct: 307

Client Name: Herzog Associates

NET Log No: 5516

Date: 01-17-91 Page: 8

Ref: Cloverdale School; Project: 15198.117

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Lead	0.2	mg/Kg	92	ND	82	83	< 1
Diesel	1	mg/Kg	108	ND	N/A	N/A	13
Motor Oil	10	mg/Kg	108	ND	N/A	N/A	N/A
Benzene	2.5	ug/Kg	103	ND	8 <b>4</b>	96	13
Toluene	2.5	ug/Kg	115	ND	90	98	8.5
Benzene	2.5	ug/Kg	90	ND	98	95	3.1
Toluene	2.5	ug/Kg	94	ND	99	96	3.0

COMMENT: Blank Results were ND on other analytes tested.



#### KEY TO ABBREVIATIONS and METHOD REFERENCES

Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.

Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram

of sample, wet-weight basis (parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of

sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters

of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable

listed reporting limit.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram

of sample, wet-weight basis (parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of

sample.

umhos/cm : Micromhos per centimeter.

#### Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 16th Edition, APHA, 1985.

Lab Name NET

HERZOG ASSOCIATES 1318 Redwood Way, Suite 200 Petaluma, CA 94954 707-792-5600

CHAIN OF CUSTODY RECORD

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									\$	\ }	<u></u>						



218 Burgundy Road, Healdsburg, California 9544, 707-433-4647

Environmental Health & Safety

Management Company

August 9, 1999

County of Sonoma
Department of Environmental Health
Attn: John Anderson
1030 Center Drive, Suite A
Santa Rosa, CA 95403-2067

DEPARTMENT OF HEALTH SERVICES

AUG 1 3 1999

ENVIRONMENTAL HEALTH DIVISION

Regarding:

SCDHS-EHD Site #00002426: NCRWCB Site #1TS0108

Cloverdale High School, 509 N. Cloverdale Blvd.

Cloverdale, California

Dear Mr Anderson:

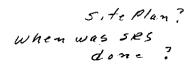
The purpose of this letter is to present the results of the last (May 4, 1999) quarterly monitoring event at the referenced site, to present a summary of analytical results from the last five consecutive monitoring events, and to request that this site be considered for closure.

### Results of May 4, 1999 Monitoring

On May 4, 1999 Marc Seeley, our registered California Geologist sampled Monitoring Wells MW-4 and MW-6 using standard environmental procedures. The samples were submitted to K Prime, Inc. our subcontract analytical laboratory in Santa Rosa, California. The results for both water samples were that none of the specified compounds (THP-G/D/BTEX/MTBE) were detected within the method detection limits. The sampling and analytical results are summarized on the following attachment. The complete laboratory report is also attached.

## **Summary of Previous Monitoring**

The first quarter sampling event took place on March 3, 1998. This sampling event and all subsequent sampling events were conducted by Marc Seeley, our registered California Geologist using standard environmental procedures. This first sampling event was the only time any of the target compounds were detected. At that time (March 3, 1998) TPH-G was detected at a concentration of 65 ug/L (ppb) and Xylenes were detected at a concentration of 0.56 ug/L (ppb). Subsequent to that sampling event none of the target compounds were detected. Benzene and MTBE were never detected in any sampling event. A summary of the results of the last five monitoring events is presented in the attached table and sampling reports.



SCDHS-EHD Site #00002426: NCRWCB Site #1TS0108 Cloverdale High School, 509 N. Cloverdale Blvd. Cloverdale, California

## **Summary of Findings**

After reviewing the site history and conducting five quarterly monitoring events at this site it is our opinion that impacts to shallow ground water from the previous UST are nonexistent to minimal. Based on our pervious well canvas we determined there are no wells within 1000 feet of the site.

The site is an active parking lot with substantial vehicle parking and traffic. The asphaltic pavement of the parking lot is in poor condition with numerous cracks. It is very likely that the very low detection reported in the March 3, 1998 sampling event resulted from a surface source such as spillage from a vehicle tank.

Since there have been four continuous quarters of sampling with no detections, and benzene and MTBE have never been detected, and the site and surrounding residences are supplied by City water, it is our opinion that potential risks associated with this former UST site are nonexistent to minimal.

#### Recommendations

Based on the preceding we make the following recommendations:

The case should be referred to the NC-RWQCB for case closure

The site should not be monitored further until your office and the NC-RWQCB review the case.

Because of the fiscal constraints of the School District and the absence of data to support further monitoring we will post pone any further monitoring of this site until we hear back from your office.

If you have any question or need any additional information please feel free to call me or

George at 707-433-4647 (pager 707-491-1924).

Sincerely,

George Goobanoff Associates

George Goobanoff, R.E.A., C.EM., L.I.&R.A.

SCDHS-EHD Site #00002426: NCRWCB Site #1TS0108 Cloverdale High School, 509 N. Cloverdale Blvd. Cloverdale, California

Marc W. Seeley, RG6824

Project Geologist

Attachments

Mike Carey, Superintendent Cloverdale School District C.C.

### GEORGE GOOBANOFF ASSOCIATES

218 Burgundy Road, Healdsburg, CA 95448
Environmental Health & Safety
Management Company

May 21, 1999

County of Sonoma
Department of Environmental Health
Attn.: John Anderson
1030 Center Drive, Suite A
Santa Rosa, CA 95403-2067

Re: SCDHS-EHD Site # 00002426; NCRWQCB Site # 1TS0108

Dear Mr. Anderson:

After completing sampling of the monitoring wells M-4 and M-6, at Cloverdale High School site, 509 N. Cloverdale Blvd., for five consecutive quarters, we believe, given the following information, that this site should be considered for closure. The first quarter sampling event showed all non-detect for M-4 and Gasoline at 0.065 ug/l and Xylenes at 0.56ug/l for M-6. It should be noted that both of the results are just above detection levels. The second quarter sampling event again showed M-4 at non-detect for all materials and M-6 with Gasoline at 0.125ug/l and petroleum lighter then diesel at 0.119 ug/l. The third, fourth, and fifth quarter results for M-4 and M-6 were all non-detect. I reviewed the results with Marc Seeley, our principal geologist who was present at each sampling event at the Cloverdale High School site. Mr. Seeley concurs that the site presently should be considered for closure. Mr. Seeley believes that given this is an activated parking area and driveway that the material did not come from the ground water but rather from surface water exiting the parking lot. Copies of the four previous reports are attached.

We have enclosed with this letter the results of our last monitoring event. We will be delaying any further monitoring, due to fiscal constraints of the school district, until we hear back from your office. If you require us to continue monitoring, please call. If you have any questions or require further information you may contact me at (707) 433-4647 or page me at (707) 491-1924. Thank you for your assistance in this matter.

Sincerely,

George Goobanoff, R.E.A., C.E.M., L,I& R,A. George Goobanoff Associates

c.c. Mike Carey, Superintendent Cloverdale School District

The following results are from our last quarter monitoring dated 5/4/99:

MW-4				
TOTAL VOI	$\text{TEMP } (F^*)$	pН	TDS(ppm)	APPEARANCE
2.0 gal.	68.5	6.9	160	Silty
5.0 gal.	69.2	6.7	150	Clear
10.0 gal.	69.4	6.8	150	Clear
15.0 gal.	69.5	6.8	140	Clear
20.0 gal.	69.5	6.8	140	Clear
30.0 gal.	69.5	6.8	140	Clear
MW 6				
TOTAL VOI	L. TEMP (F*)	PH	TDS(ppm)	APPEARANCE
2.5 gal.	70.2	7.4	110	Clear
5.0 gal	69.9	7.2	120	Clear
10.0 gal.	69.8	7.0	140	Clear
15.0 gal.	69.6	7.1	140	Clear
20.0 gal.	69.6	7.1	140	Clear
30.0 gal	69.6	7.1	140	Clear
LAB RESUI	LTS			
	COMPOUND NAME	SAMPLE	CONCENTRAT	TION
MW-4	Benzene	N/.	D	
	Toluene	N/	D	
	Ethylbenzene	N/	D .	
	M&P-Xylene	N/.	D	
	0-Xylene	<b>N</b> /.	D	
	MTBE	N/.	D	
	TPH-G	N/.	D	
	TPH-D	N/.	D	
	COMPOUND NAME	SAMPLE	CONCENTRAT	ΠΟΝ
MW-6	Benzene	N/.	D	
	Toluene	N/.	D	
	Ethylbenzene	. N/.	D	
	M&P-Xylene	<b>N</b> /3	D	
	O-Xylene	<b>N</b> /	D	
	MTBE	N/.	D	
	TPH-G	N/:		
	TPH-D	<b>N</b> /1	D	

NOTE: N/D—Not detected at stated reporting limit. PRE-FIELD CALIBRATION: pH actual = 7.0, instrument = 7.1, TDS actual (distilled water standard = ND).

# MONITORING WELL SAMPLING DATA SHEET

WELL NO:

MW-8

PROJECT NO: 9805.226

5-4-99

TOC ELEV:

DATE:

JOB NAME: Cloverdate High School

BORING DIAMETER (d):

8"

JOB ADDRESS:

509 N. Cloverdale Blvd.

WELL CASING DIAMETER:

4"

SAMPLED BY:

Marc W. Seeley, RG

PRE- FIELD CALLIBRATION: pH actual= 7.0, instrument =7.1, TDS actual (DW standard =ND), instrument = 000

DEPTH MEASURED	FEET
DEPTH TO WATER (from top of casing)	4.83
DEPTH TO PRODUCT	NA
PRODUCT THICKNESS	NA
DEPTH TO BOTTOM OF CASING	19.84
WATER THICKNESS (h)	14.81
GROUND WATER ELEVATION	na

**VOLUME OF WATER TO BE PURGED** 

3 Well Volumes: 3( h ft x 0.66 gal/linear ft) = 3(14.81 ft x 0.66 gal/linear ft) = 29.0 gallons

**VOLUME OF WATER PURGED FROM WELL: 30 gallons** 

ρН	TEMPERATURE (F°)	TDS (ppm)	VOLUME	APPEARANCE
7.4	70.2	11-	2.5	Clear
7.2	69.9	120	5	•
7.0	69.8	140	10	
7.1	69.6	140	15	. •
7.1	69.6	140	20	
7.1	69.6	140	30	•

DEPTH RECOVERED TO:

5.02

SAMPLE COLLECTION TIME: 2:45

SAMPLER TYPE:

PVC disposable bailer

SAMPLE CONTAINERS:

__3___ 40 ml VOAs, ____ amber 1L

TESTS REQUIRED:

X_TPH-G/BTEX , __X__TPH-D, _____MTBE/ oxygenates, __X__ other

ANALYTICAL LAB:

K-Prime, Santa Rosa

COMMENTS:

Clear water, no HC odor, replace locking well cap

## MONITORING WELL SAMPLING DATA SHEET

PROJECT NO: 9805.226

WELL NO:

MW-4

DATE:

5-4-99

TOC ELEV:

JOB NAME:

Cloverdale High School

**BORING DIAMETER (d):** 

8"

JOB ADDRESS:

509 N. Cloverdale Blvd.

WELL CASING DIAMETER: -

•

SAMPLED BY:

Marc W. Seeley, RG

PRE- FIELD CALIBRATION: pH actual= 7.0, instrument =7.1, TDS actual (DW standard =ND), instrument = 000

DEPTH MEASURED	FEET
DEPTH TO WATER (from top of casing)	4.28
DEPTH TO PRODUCT	NA
PRODUCT THICKNESS	NA NA
DEPTH TO BOTTOM OF CASING	19.49
WATER THICKNESS (h)	15.21
GROUND WATER ELEVATION	na

#### **VOLUME OF WATER TO BE PURGED**

3 Well Volumes: 3( h ft x 0.66 gal/linear ft) = 3(15.21ft x 0.68 gal/linear ft) = 30.4 gallons

#### **VOLUME OF WATER PURGED FROM WELL: 30 gallons**

рН	TEMPERATURE (F°)	TOS (ppm)	VOLUME	APPEARANCE
6.9	88.5	160	2	Silty
6.7	69.2	150	5	clear
6.8	69,4	150	10	ď
6.8	69.5	140	15	
6.8	69.5	140	20	•
6.8	69.5	140	30	

			TO:

4.38

**SAMPLE COLLECTION TIME: 3:30** 

SAMPLER TYPE:

PVC disposable bailer

**SAMPLE CONTAINERS:** 

__3___ 40 mi VOAs, __1__ amber 1L

**TESTS REQUIRED:** 

__X_TPH-G/BTEX , __X_TPH-D, _____MTBE/ oxygenates, __X___ other

ANALYTICAL LAB:

K-Prime, Santa Rosa

COMMENTS:

Clear water, no HC odor, replace locking well cap

Acct: 9485/9509

Project: "CLOVERDALE HIGH SCHOOL"

K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd Santa Rosa CA 95403

Phone: 707 527 7574 FAX: 707 527 7879

#### TRANSMITTAL

DATE:

05.18.99

TO:

Mr. GEORGE GOOBANOFF

for SONOMA COUNTY SCHOOLS

218 BURGUNDY ROAD HEALDSBURG CA 95448

Phone: 707.433.4647 FAX: 707.433.4647

FROM:

Richard A. Kagel, Ph.D. Laboratory Director

SUBJECT: YOUR PROJECT

"CLOVERDALE HIGH SCHOOL"

LABORATORY RESULTS

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	SAMPLE TYPE	DATE	KPI LAB#
MW-6	WATER	05.04.99	20740
MW-4	WATER	05.04.99	20741

These samples were received in our laboratory on 05.04.99 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information. Thank you for this opportunity to be of service.

MW-6 SAMPLE ID: K PRIME, INC. 20740 LAB NO: LABORATORY REPORT WATER SAMPLE TYPE: 5/4/99 DATE SAMPLED: **OUR PROJECT: 9509** NA YOUR PROJECT: CLOVERDALE HIGH SCHOOL TIME SAMPLED: 5/5/99 DATE ANALYZED: METHOD: BTEX + MTBE UNITS: μg/L REFFERENCE: EPA 8020 SAMPLE CAS NO. REPORTING COMPOUND NAME CONC LIMIT ND 0.500 71-43-2 BENZENE ND 108-88-3 0.500 **FOLUENE** ND 0.500 100-41-4 ETHYLBENZENE ND 1330-20-7 0.500 M-&P-XYLENE 0.500 ND 95-47-6 O-XYLENE ND 1634-04-4 5.00 MTBE

METHOD: TPH-G REFERENCE: EPA 8015M	DATE ANALYZED: UNITS:	5/5/99 mg/L
COMPOUND NAME	REPORTING LIMIT	SAMPLE CONC
TPH-G	0.0500	ND

NOTES:

ND - NOT DETECTED AT STATED REPORTING LIMIT

NA - NOT APPLICABLE

APPROVED BY:

DATE:

K PRIME, INC. LABORATORY REPORT

SAMPLE ID: LAB NO: SAMPLE TYPE:

MW-4 20741

**OUR PROJECT: 9509** 

DATE SAMPLED:

WATER

YOUR PROJECT: CLOVERDALE HIGH SCHOOL

TIME SAMPLED:

5/4/99 NA

METHOD: BTEX + MTBE

DATE ANALYZED:

5/5/99

REFFERENCE: EPA 8020

UNITS:

μg/L

COMPOUND NA	WE
-------------	----

BENZENE

	CAS NO. REPORTING LIMIT		SAMPLE
٦	71-43-2	0.500	ND
	108-88-3	0.500	ND
	100-41-4	0.500	ND
	1330-20-7	0.500	ND
_			

108-88-3	0.500	ND
100-41-4	0.500	ND
1330-20-7	0.500	ND
95-47-6	0.500	ND
1634-04-4	5.00	ND
	100-41-4 1330-20-7 95-47-6	100-41-4 0.500 1330-20-7 0.500 95-47-6 0.500

**METHOD: TPH-G** 

**DATE ANALYZED:** 

5/5/99

**REFERENCE: EPA 8015M** 

UNITS:

mg/L

COMPOUND NAME

REPORTING

SAMPLE

LIMIT CONC ND 0.0500 TPH-G

NOTES:

ND - NOT DETECTED AT STATED REPORTING LIMIT

NA - NOT APPLICABLE

APPROVED BY:

DATE: _

K PRIME, INC.

LABORATORY BATCH QC REPORT

DATE(FROM): 4/28/99

**DATE(TO):** 5/7/99

**METHOD: TPH-G** 

REFERENCE: EPA 8015M/CA DHS LUFT

SAMPLE TYPE: WATER

UNITS: MG/L

### **ACCURACY (MATRIX SPIKE)**

COMPOUND NAM	PEPOPTING	SPIKE	SPIKE	%
COMPOUND MAIN	LIMIT	ADDED	RESULT	ECOVERY
TPH-G	0.0500	0.500	0.465	93

### PRECISION (DUPLICATES)

COMPOUND NAM	REPORTING	SPIKE	UPLICAT	RPD
	LIMIT		RESULT	(%)
TPH-G	0.0500	0.465	0.472	1.5

NOTES:

K PRIME, INC.

LABORATORY QC REPORT

DATE (FROM): 4/27/99

DATE (TO): 5/7/99

METHOD: VOLATILE ORGANIC COMPOUNDS

SAMPLE TYPE: WATER

UNITS:

μg/L

### **ACCURACY (MATRIX SPIKE)**

REFERENCE: EPA 8020

PARAMETER	SPIKE	SAMPLE	SPIKE	ECOVER	LIMITS
	ADDED	RESULT	RESULT	(%)	(%)
BENZENE	25.0	ND	24.3	97	60-140
TOLUENE	25.0	ND	24.4	98	60-140
ETHYLBENZENE	25.0	ND	24.3	97	60-140
M-&P-XYLENE	50.0	ND	49.5	99	60-140
O-XYLENE	25.0	ND	24.9	100	60-140
MTBE	25.0	ND	26.6	106	60-140

### PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	EPORTIN	8PIKE	UPLICAT	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
BENZENE	0.500	24.3	23.9	1.7	±20
TOLUENE	0.500	24.4	23.9	2.1	±20
ETHYLBENZENE	0.500	24.3	23.7	2.5	±20
M-&P-XYLENE	0.500	49.5	48.2	2.7	±20
O-XYLENE	0.500	24.9	24.5	1.6	±20
MTHE	5.00	26.6	27.1	1.9	±20

NOTES:

# K PRIME, INC.

CONSULTING AVAINTONLOHE 14878

3621 Westwind Bivol. Santa Rosa, CA 95403

PHONE: (707) 527-7574

) 527-7574 FAX. (707) 527-7879

CHAIN OF CUSTODY RECORD

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Cloverdale Figh School Wells Test Results	
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MW-6		March 3, 1998	May 27, 1998	Sept. 30, 1998 Dec. 16, 1998	Dec. 16, 1998	May 4, 1999
	Gasoline	0.065 mg/L	N/D	NB:125mg/1	J/N //	Q/N
	Benzene	Q/N	Q/N	D/N		Q/N
	Toluene	N/D	Q/N	Q/N	N/D	Q/N
	Ethylbenzene	N/D	Q/N	N/D	Q/N	Q/N
	O-Xylenes	0.56 ug/L	Q/N	Q/N	Q/N	Q/N
	M&P-Xylene		O/N	Q/N	Q/N	Q/N
	Diesel	Q/N	N/D	1/5m 611.	Q/N	
	MTBE	N/D	N/D	D/N	D/N	Q/N
MW-4						
	Gasoline	Q/N	N/D	Q/N	D/N	N/D
	Benzene	N/D	N/D	Q/N	N/D	N/D
	Toluene	Q/N	N/D	Q/N	N/D	Q/N
	Ethylbenzene	N/D	N/D	Q/N	N/D	N/D
	0-Xylenes	N/D	Q/N	Q/N	Ο/N	Q/N
	M&P-Xylene		N/D	Q/N	D/N	N/D
	Diesel	Q/N	N/D		QN	
	MTBE	Q/N	Q/N	N/D	N/D	N/D

County of Sonoma
Department of Environmental Health
Attention: John Anderson
1030 Center Drive, Suite A
Santa Rosa, CA 95403-2067

March 3, 1998

Dear Mr. Anderson:

Re: Monitoring Well Sampling Report.

The following results are from our first quarter monitoring:

MW	TOTAL DEPTH	WATE LEVE		WATER COLUMN	CASING DIAMETER	PURGE VOLUME
6 4	19.75' 19.60'	2.30' 1.98'		17.45 17.62	4" 4"	11.4 gal. 11.5 gal.
CALIBRATIO STANDARD READING		PH10 10.16		PH4 3.98	PH7 7.01	SC. 1380 OHMS.
MW-6 TIME	TOTAL VOL	·•	TEMP	(C*)	РН	SC.
09:45 09:53 10:00 10:10 Water level @ Sample collect	0.4 gal. 11.4 gal. 22.8 gal. 34.2 gal. sampling: 2.3 ted @ 10:20	0'	13.9 18.1 18.6 18.7		6.37 6.42 6.46 6.46	350 300 310 310
MW 4 TIME	TOTAL VOL	·•	TEMP	'(C*)	РН	SC
10:50 10:57 11:05 11:11 Water level @ Sample collect	0.4 gal. 11.5 gal 23.0 gal. 34.5 gal. sampling: 2.0 ted @ 11:20.	0'	17.5 18.6 19.4 20.0		6.37 6.35 6.36 6.36	275 260 270 290

March 3, 1998

### **RESULTS**

MW-6	Gasoline	0.065 mg/L
	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	Xylenes	0.56 ug/L
	Diesel	N/D
	MTBE	N/D
MW-4	Gasoline	N/D
	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	Xylenes	N/D
	Diesel	N/D
	MTBE	N/D

If you have any questions or require further information, please call me at 433-4647.

Sincerely,

George Goobanoff Sonoma County Office of Education

cc: Dan Klasson

Department of Environmental Health

Attention: John Anderson 1030 Center Drive, Suite A Santa Rosa, CA 95403-2067

May 27, 1998

Dear Mr. Anderson:

Re: Monitoring Well Sampling Report For: Cloverdale High School

509 N. Cloverdale Blvd.

Cloverdale, CA

The following results are from our second quarter monitoring:

MW	TOTAL	WATER	WATER	CASING	PURGE
	DEPTH	LEVEL	COLUMN	DIAMETER	VOLUME
6	19.64 ft.	4.12 ft.	15.52 ft.	4 in.	31 gal.
4	19.49 ft.	3.65 ft.	15.04 ft.	4 in.	32 gal.

PRE-FIELD CALLIBRATION: pH actual = 7.0, instrument = 7.1, TDS actual (DW standard = ND), instrument = 000.

MW-6							
TIME	TOTAL VOL.	TEMP (C*)	PH	TDS(ppm)			
01:35	1.5 gal.	18.8	7.6	110			
01:45	5.0 gal.	17.8	7.6	140			
01:55	15.0 gal.	17.9	7.4	140			
02:05	20.0 gal.	17.8	7.4	140			
02:15	30.0 gal.	17.8	7.4	140			
Water lev	rel @ sampling: 4.20'						
Sample co	Sample collected @ 2:25 pm						
MW 4							
TIME	TOTAL VOL.	TEMP(C*)	PH	TDS(ppm)			
10:50	1.5 gal.	18.9	7.7	120			
10:57	5.0 gal	18.7	7.4	130			
11:05	10.0 gal.	18.2	7.4	140			
03:15	20.0 gal.	17.9	7.4	140			
03:25	30.0 gal.	17.8	7.4	140			
Water lev	rel @ sampling: 3.71 fee	t					

Water level @ sampling: 3.71 feet Sample collected @ 3:35 pm.

### **RESULTS**

	COMPOUND NAME	SAMPLE CONCENTRATION
MW-6	Gasoline	N/D
	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	M&P-Xylene	N/D
	0-Xylene	N/D
	Diesel	N/D
	MTBE	N/D
	COMPOUND NAME	SAMPLE CONCENTRATION
MW-4	Gasoline	N/D
	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	M&P-Xylene	N/D
	O-Xylene	N/D
	Diesel	N/D
	MTBE	N/D

If you have any questions or require further information, please call me at 433-4647.

Sincerely,

George Goobanoff Sonoma County Office of Education

cc: Dan Klasson

County of Sonoma

Department of Environmental Health

Attention: John Anderson 1030 Center Drive, Suite A Santa Rosa, CA 95403-2067

September 30, 1998

Dear Mr. Anderson:

Re: Monitoring Well Sampling Report

For:

Cloverdale High School

509 N. Cloverdale Blvd.

Cloverdale, CA

The following results are from our third quarter monitoring:

MW	TOTAL	WATER	WATER	CASING	PURGE
	DEPTH	THICK	COLUMN	DIAMETER	VOLUME
6	19.64 ft.	5.72 ft.	13.92 ft.	4 in.	15 gal.
4	19.49 ft.	6.65 ft.	12.84 ft.	4 in.	15 gal.

PRE-FIELD CALIBRATION: pH actual = 7.0, instrument = 7.1, TDS actual ND(distilled water standard = ND), instrument = 000.

MW-6				
TOTAL VOL.	TEMP (F*)	pН	TDS(ppm)	APPEARANCE
1.5 gal.	68.3	7.4	10	Clear
7.0 gal.	68.5	7.1	10	Clear
10.0 gal.	68.1	7.1	10	Clear
15.0 gal.	68.1	7.1	10	Clear
Water level @ sem	anlina, 140 Gas			

Water level @ sampling: 14.2 feet

Sample time: 9:30 a.m.

MW 4				
TOTAL VOL.	TEMP (F*)	PH	TDS(ppm)	APPEARANCE
1.5 gal.	73.5	8.5	20	Clear
5.0 gal	70.6	8.3	20	Clear
10.0 gal.	70.8	8.2	20	Clear
15.0 gal.	70.8	8.2	20	Clear

Water level @ sampling: 12.88 feet

Sample time: 10:45 a.m.

September 30, 1998

### **RESULTS**

	COMPOUND NAME	SAMPLE CONCENTRATION
MW-6	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	M&P-Xylene	N/D
	0-Xylene	N/D
	MTBE	N/D
	COMPOUND NAME	SAMPLE CONCENTRATION
MW-4	Benzene	N/D
	Toluene	N/D
	Ethylbenzene	N/D
	M&P-Xylene	N/D
	O-Xylene	N/D
	MTBE	N/D

If you have any questions or require further information, please call me at 433-4647.

Sincerely,

George Goobanoff Sonoma County Office of Education

cc: Dan Klasson

September 30, 1998 2

### GEORGE GOOBANOFF ASSOCIATES

218 Burgundy Road, Healdsburg, CA 95448
Environmental Health & Safety
Management Company

April 2, 1999

County of Sonoma
Department of Environmental Health
Attn.: John Anderson
1030 Center Drive, Suite A
Santa Rosa, CA 95403-2067

Re: SCDHS-EHD Site # 00002426; NCRWQCB Site # 1TS0108

Dear Mr. Anderson:

After completing sampling of the monitoring wells M-4 and M-6, at Cloverdale High School site, 509 N. Cloverdale Blvd., for four consecutive quarters, we believe, given the following information, that this site should be considered for closure. The first quarter sampling event showed all non-detect for M-4 and Gasoline at 0.065 ug/l and Xylenes at 0.56ug/l for M-6. It should be noted that both of the results are just above detection levels. The second quarter sampling event again showed M-4 at non-detect for all materials and M-6 with Gasoline at 0.125ug/l and petroleum lighter then diesel at 0.119 ug/l. The third quarter and fourth quarter results for M-4 and M-6 were all non-detect. I also reviewed the results with Marc Seeley, our principal geologist who was present at each sampling event at the Cloverdale High School site. Mr. Seeley concurs that the site presently should be considered for closures. Mr. Seeley believes that given this is an activated parking area and driveway that the material did not come from the ground water but rather from surface water exiting the parking lot.

We have enclosed with this letter the results of our last monitoring event. We will be delaying any further monitoring, due to fiscal constraints of the school district, until we hear back from your office. If you require us to continue monitoring, please call. If you have any questions or require further information you may contact me at (707) 433-4647 or page me at (707) 491-1924. Thank you for your assistance in this matter.

Sincerely,

George Goobanoff, R.E.A., C.E.M., L,I& R,A. George Goobanoff Associates

c.c. Mike Carey, Superintendent Cloverdale School District

April 2, 1999

The following results are from our fourth quarter monitoring dated 12/16/98:

MW-4			
TOTAL VOI	TEMP (F*)	pН	TDS(ppm) APPEARANCE
1.5 gal.	70.0	6.7	170 Silty
5.0 gal.	6906	6.6	180 Clear
10.0 gal.	69.7	6.5	150 Clear
15.0 gal.	69.4	6.4	150 Clear
20.0 gal.	69.4	6.4	150 Clear
30.0 gal.	69.4	6.4	150 Clear
MW 6	·		•
TOTAL VOL	$TEMP (F^*)$	PH	TDS(ppm) APPEARANCE
1.5 gal.	70.0	7.3	120 Silty
5.0 gal	69.8	7.0	130 Clear
10.0 gal.	69.7	6.8	140 Clear
15.0 gal.	69.4	6.6	150 Clear
20.0 gal.	69.4	6.4	150 Clear
30.0 gal	69.4	6.4	150 Clear
LAB RESUL	LTS		
	COMPOUND NAME	SAMPLE	CONCENTRATION
MW-4	Benzene	N/I	)
	Toluene	N/I	)
	Ethylbenzene	N/I	)
	M&P-Xylene	N/I	)
	0-Xylene	N/I	)
	MTBE	N/I	)
	TPH-G	N/I	)
	TPH-D	N/I	)
	COMPOUND NAME	SAMPLE (	CONCENTRATION
MW-6	Benzene	N/I	
	Toluene	N/I	)
	Ethylbenzene	N/I	)
	M&P-Xylene	N/I	)
	O-Xylene	N/I	
	MTBE	N/I	
	TPH-G	N/I	)
	Third		

NOTE: N/D—Not detected at stated reporting limit. PRE-FIELD CALIBRATION: pH actual = 7.0, instrument = 7.1, TDS actual ND (distilled water standard = ND).

N/D

TPH-D

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 03/26/96-06/30/96

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale Blvd N

CITY/ZIP: Cloverdale MULTIPLE RPs: no

SITE STATUS

CASE TYPE: A CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

CASE CLOSED OR REFERRED: DATE TAKEN:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-1920

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 09/26/98

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 03/14/95-06/30/95

AGENCY CODE:

49000

SOURCE OF FUNDS: F

SUBSTANCE: 12036

SITE NO.:

00002426

FEDERAL EXEMPT: N

DATE REPORTED:

07/17/86

SITE NAME:

Cloverdale High School

DATE CONFIRMED:

07/21/86

ADDRESS:

509 Cloverdale Blvd N

CITY/ZIP:

Cloverdale

MULTIPLE RPs:

no

### SITE STATUS

CASE TYPE:

CONTRACT STATUS: 5

**EMERGENCY** 

RP SEARCH:

DATE UNDERWAY: 01/22/89

RESPONSE: DATE COMPLETED:

01/22/89

PRELIMINARY ASSESSMENT:

С DATE UNDERWAY: 01/22/90

DATE COMPLETED:

01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94

DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

TYPE: 1

DATE TAKEN:

10/16/90

CASE CLOSED OR REFERRED:

DATE TAKEN:

REMEDIAL ACTIONS TAKEN:

DATE:

### RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist

PHONE #: (707)-894-1920

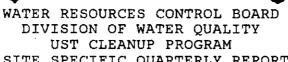
ADDRESS:

97 School St.

CITY/STATE: Cloverdale, CA 95425

CI - lust-1/4 report

Report Date: 09/18/95



SITE SPECIFIC QUARTERLY REPORT

CONTRACTOR NO.:

00049

SOURCE OF FUNDS: F

SUBSTANCE: 12036

SITE NO.:

00002426 FEDERAL EXEMPT: N

PETROLEUM:

SITE NAME: Cloverdale High School

DATE REPORTED: 07/17/86

ADDRESS:

509 Cloverdale N.

CITY/ZIP:

Cloverdale 95425

DATE CONFIRMED: 07/21/86

REFERRED TO RWOCB:

DATE:

CATEGORY:

SITE STATUS

CASE TYPE: G

CONTRACT STATUS: 5 EMERGENCY RESPONSE:

RP SEARCH: S

DATE UNDERWAY: 06/12/90 DATE COMPLETED: 06/12/90

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: DATE COMPLETED:

01/22/90

REMEDIAL INVESTIGATION: U

DATE UNDERWAY: 12-5-90 DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

TYPE:

DATE TAKEN:

RAP REQUIRED:

DATE APPROVED:

CASE CLOSED:

DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist

ADDRESS:

97 School St.

CITY/STATE: Cloverdale, CA 95425

Report Date: 12/27/90

MS

Date #QI HAZ HAT - HOURLY TIME RECORDING CARD Facility Address Applicant_

/ Existing Tank Site / Tank/Pipe Repair Initia Activity Code/Remarks Gross Hours / New Tank Construction / / Site Investigation Total Time /// Tank Closure (Hoyrs) Finish Time Start Time bermit Submitted: -27-90 -26-90 1-5-90

/Hour Total Fee Minus Permit Fees =

Gross Hours 🗴 🕏

Permit Fees Paid

Dae

Total Fee

Card No.

980<u>x</u>(5/87)

# ACTIVITY CODES

Travel	Office Meeting Consultation.	Construction Inspection	Phone Consultation	Appeal Hearing	Agency Meeting/Review	Office Plan Check	Site Inspection/Consultation
•	•	•	•	•	•	•	ā
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œ	7	6	U	4	ω	2	-

### LUST - Request for Action

Site Code ID# 3426	0.4	Date	6-12-90
Facility Name Cloverdale His	ih School		
Facility Address 509 N. Clor		1. Cloverdale	CA 95425
Change in Owner/Operator/Faci		•	
	<u> </u>		
Source of Funds F(S/F) Substance	:e <u>/2036</u> Fi	ed Exempt $N(Y/N)$	Petroleum <u>Y</u> (Y/N)
Date Reported 71 171 86 Date	· Confirmed 7/2	2/1 86 Contract	Status <u>5</u> (1-8)
Category P (R/S) Case Type 6	(S/G/D/U) Emerge	ency Response/_	
URF Rec 1 26187 PSA Reques	ited//	_ PSA Final Report	Rec / 125190
Well Plan Due/ Work			
BDS Notified/Prop 65//	_ Consideration	of LUFT Field Manua	11(Y/N)
Sampling Plan Rec'd//		/(1/2/3 <u>and</u> +	1/5/C/A/R/W/6/D)
	Status	Date Underway	Date Completed
1) RP Search:	<u> </u>	6112190	61.12190
2) Preliminary Site Assessment:	<u>C (U/C)</u>		1,22,90
3) Remedial Investigation:	(0/0)	/	
4) Health Exposure Assessment:	(Y/N/U/E)	//	
5) Feasibility Study	(U/C)	//	//
6) Remedial Action Plan:	(U/C)	//	//
7) Public Participation Plan:	(Y/N/U/E)	//	//
B) Post Remedial Action Mon.:	(Y/N/U/C)	//	//
♦ MW_3 ♦ Soil Borings Gr	rnundwater lønart	Y Brinking Nata	r lanset
Free Product Present Benzene			
Enforcement Action Taken(Y/N)		-	
RAP Req. (U/C) Date Approved			
Date Closed// Date (			•••
Remedial Actions Taken			
Other			
Requested by			
Requested by	* * * * * * * *		
(for clerical use only) Acc	t. Clerk/	/ LUST Clerk_	2113190 1

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 01/01/94-03/31/94

AGENCY CODE:

49000

SOURCE OF FUNDS:

SUBSTANCE: 12036

SITE NO.:

00002426

FEDERAL EXEMPT: N

DATE REPORTED:

07/17/86

SITE NAME:

Cloverdale High School

DATE CONFIRMED: 07/21/86

ADDRESS:

509 Cloverdale N.

CITY/ZIP:

Cloverdale

95425

MULTIPLE RPs:

### SITE STATUS

CASE TYPE:

CONTRACT STATUS: 5

**EMERGENCY** 

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89

F

01/22/89 DATE COMPLETED:

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90

DATE COMPLETED:

01/23/90

REMEDIAL INVESTIGATION: U

DATE UNDERWAY: 05/22/92

DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

Υ

TYPE: 1 DATE TAKEN:

10/16/90

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED:

DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

### RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

CCMPANY NAME: Cloverdale Unified School Dist

PHONE #: (707)-894-2548

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

CI Report Date: 04/04/94

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 09/28/93-12/20/93

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale N.

CITY/ZIP: Cloverdale 95425 MULTIPLE RPs: no

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/22/92 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED: DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-2548

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

CI Report Date: 01/28/94

## SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 07/01/93-09/30/93

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale N.

1

CITY/ZIP: Cloverdale 95425 MULTIPLE RPs: no

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 5 EMERGENCY

RESPONSE:
RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/22/92 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED: DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-2548

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

JA Report Date: 10/22/93

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 04/01/93-06/30/93

AGENCY CODE:

49000

SOURCE OF FUNDS:

SUBSTANCE: 12036

SITE NO.:

00002426

FEDERAL EXEMPT: N

DATE REPORTED:

07/17/86

SITE NAME:

Cloverdale High School

DATE CONFIRMED: 07/21/86

ADDRESS:

509 Cloverdale N.

CITY/ZIP:

Cloverdale

95425

MULTIPLE RPs:

no

### SITE STATUS

CASE TYPE:

G

CONTRACT STATUS:

**EMERGENCY** 

RESPONSE:

RP SEARCH:

S

DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY:

5

F

01/22/90 DATE COMPLETED:

01/23/90

REMEDIAL INVESTIGATION:

U DATE UNDERWAY:

05/22/92 DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

**ENFORCEMENT ACTION** 

TAKEN:

TYPE: 1

DATE TAKEN:

10/15/90

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED:

DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

### RESPONSIBLE PARTY

CONTACT NAME:

Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist

PHONE #: (707)-894-2548

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

07/29/93 Report Date: JA

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 12/22/92-03/15/93

AGENCY CODE: 49000

SOURCE OF FUNDS: F

SUBSTANCE: 12036

SITE NO.:

00002426 FEDERAL EXEMPT: N

DATE REPORTED:

07/17/86

SITE NAME:

Cloverdale High School

DATE CONFIRMED: 07/21/86

ADDRESS:

509 Cloverdale N.

CITY/ZIP: Cloverdale

95425

MULTIPLE RPs:

no

### SITE STATUS

CASE TYPE:

CONTRACT STATUS: 5

**EMERGENCY** 

**RESPONSE:** 

RP SEARCH:

DATE UNDERWAY: 01/22/89

DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT:

C DATE UNDERWAY: 01/22/90

DATE COMPLETED:

01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/22/92 DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

**ENFORCEMENT ACTION** 

TAKEN:

TYPE: 1

DATE TAKEN:

10/16/90

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED:

DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

### RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist

PHONE #: (707)-894-2548

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

Report Date: 04/16/93 JA

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT

FOR 09/14/92-12/21/92

AGENCY CODE: 49000

SOURCE OF FUNDS: F

SUBSTANCE: 12036

SITE NO.:

00002426

FEDERAL EXEMPT: N

DATE REPORTED: 07/17/86

SITE NAME:

Cloverdale High School

DATE CONFIRMED: 07/21/86

ADDRESS:

509 Cloverdale N.

CITY/ZIP:

Cloverdale

95425

MULTIPLE RPs:

no

### SITE STATUS

CASE TYPE:

CONTRACT STATUS: 5

**EMERGENCY** RESPONSE:

RP SEARCH: S

DATE UNDERWAY: 01/22/89

DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/22/92 DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

TYPE: 1

DATE TAKEN: 10/16/90

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE INACTIVE:

DATE INACTIVE:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

### RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist

PHONE #: (707)-894-2548

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

Report Date: 01/29/93 JA

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT

FOR 07/01/92-09/30/92

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale N.

CITY/ZIP: Cloverdale 95425 MULTIPLE RPs: no

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/22/92 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/30

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE INACTIVE: DATE INACTIVE:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-2548

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

MS Report Date: 10/19/92

### WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 04/01/92-06/30/92

CONTRACTOR NO.: 49000

SOURCE OF FUNDS:

SUBSTANCE: 12036

SITE NO.:

00002426 FEDERAL EXEMPT:

PETROLEUM:

SITE NAME:

Cloverdale High School

DATE REPORTED: 07/17/86

ADDRESS:

509 Cloverdale N.

CITY/ZIP:

Cloverdale 95425

DATE CONFIRMED:

07/21/86

MULTIPLE RPs:

no

SITE STATUS

CASE TYPE: G

CONTRACT STATUS:

EMERGENCY RESPONSE:

RP SEARCH:

DATE UNDERWAY: 06/12/90 S

F

Ν

DATE COMPLETED: 06/12/90

PRELIMINARY ASSESSMENT:

С DATE UNDERWAY:

12/05/90

DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION:

U DATE UNDERWAY: 11/27/90

DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

TYPE:

DATE TAKEN:

LUFT FIELD MANUAL CONSIDERATION:

CASE INACTIVE:

DATE INACTIVE:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

RESPONSIBLE PARTY

CONTACT NAME:

Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist

PHONE #: (707)-894-2548

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

MS

Report Date: 07/15/92

### WATER RESOURCES CONTROL BOARD VISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 01/01/92-03/31/92

CONTRACTOR NO.: 49000 SCURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N PETROLEUM: Y

SITE NAME: Cloverdale High School DATE REPORTED: 07/17/86

ADDRESS: 509 Cloverdale N.)

CITY/ZIP: Cloverdale 95425

DATE CONFIRMED: 07/21/86

MULTIPLE RPs: no

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 5 EMERGENCY RESPONSE:

RP SEARCH: S DATE UNDERWAY: 06/12/90 DATE COMPLETED: 06/12/90

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 12/05/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 11/27/90 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: TYPE: DATE TAKEN:

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE INACTIVE: DATE INACTIVE:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-2548

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

MS Report Date: 04/16/92

### WATER RESOURCES CONTROL BOARD IVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 10/01/91-12/31/91

CONTRACTOR NO.: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N PETROLEUM: Y

SITE NAME: Cloverdale High School DATE REPORTED: 07/17/86

ADDRESS: 509 Cloverdale N.

CITY/ZIP: Cloverdale 95425

DATE CONFIRMED: 07/21/86

MULTIPLE RPs: no

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 06/12/90 DATE COMPLETED: 06/12/90

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 12/05/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 11/27/90 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

**ENFORCEMENT ACTION** 

TAKEN: TYPE: DATE TAKEN:

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED: DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-2548

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

MS Report Date: 01/09/92

### WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 03/19/91-06/30/91

CONTRACTOR NO.: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N PETROLEUM: Y

SITE NAME: Cloverdale High School DATE REPORTED: 07/17/86

ADDRESS: 509 Cloverdale N.

CITY/ZIP: Cloverdale 95425

DATE CONFIRMED: 07/21/86

MULTIPLE RPs: no

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 06/12/90 DATE COMPLETED: 06/12/90

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 12/05/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 11/27/90 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: TYPE: DATE TAKEN:

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED: DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-2548

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

MS Report Date: 07/08/91

### WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT

FOR 07/01/91-09/30/91

CONTRACTOR NO.: 49000

SOURCE OF FUNDS: F

SUBSTANCE: 12036

Y

SITE NO.:

00002426

FEDERAL EXEMPT:

PETROLEUM:

SITE NAME:

Cloverdale High School

DATE REPORTED: 07/17/86

ADDRESS:

509 Cloverdale N.

CITY/ZIP:

Cloverdale 95425

DATE CONFIRMED: 07/21/86

MULTIPLE RPs:

no

SITE STATUS

CASE TYPE:

CONTRACT STATUS: 5

**EMERGENCY** 

RP SEARCH:

DATE UNDERWAY: 06/12/90 S

RESPONSE:

DATE COMPLETED: 06/12/90

C DATE UNDERWAY: 12/05/90

Ν

DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 11/27/90

PRELIMINARY ASSESSMENT:

DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

TYPE:

DATE TAKEN:

LUFT FIELD MANUAL CONSIDERATION:

CASE CLOSED:

DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist

PHONE #: (707)-894-2548

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

MS

Report Date: 10/04/91

### R RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 04/01/91-06/30/91

CONTRACTOR NO.: 49000

SOURCE OF FUNDS:

SUBSTANCE: 12036

SITE NO.:

00002426

FEDERAL EXEMPT: N

PETROLEUM:

SITE NAME:

Cloverdale High School

DATE REPORTED: 07/17/86

ż

ADDRESS:

509 Cloverdale N.

CITY/ZIP:

Cloverdale 95425

DATE CONFIRMED: 07/21/86

MULTIPLE RPs: BO

SITE STATUS

CASE TYPE: 6

CONTRACT STATUS: 5

EMERGENCY

RESPONSE:

RP SEARCH:

S DATE UNDERWAY: 06/12/90 DATE COMPLETED: 06/12/90

REPEDIAL INVESTIGATION: U DATE UNDERWAY: 11/27/90 DATE COMPLETED: -03/26/9#

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 12/05/90 DATE COMPLETED: 01/23/90

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

TYPE:

DATE TAKEN:

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED:

DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

### RESPONSIBLE PARTY

CONTACT MAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-2548

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

48

Report Date: 06/26/91

### LUST - Request for Action

Site Code 100 2426		Date	4-12-91
Facility Name			
Facility Address 509 CL			
Change in Owner/Operator/Fac			<del></del> -
Source of Funds(S/F) Substan	ce F:	ed Exempt(Y/N)	Petroleum(Y/N)
Date Reported/			
Category (R/S) Case Type	(S/6/D/U) Emergi	ency Response/_	_/
URF Rec/ PSA Reque	sted//	_ PSA Final Report	Rec/
Well Plan Due/ Wor	k Plan Rec/_	_/ Field Sam	pling
BDS Notified/Prop 65//	_ Consideration	of LUFT Field Manua	11(Y/N)
Sampling Plan Rec'd//			
	CA nA	<b></b>	
1) RP Search:	Status (E(T/N/P)	Date Underway	Date Completed
2) Preliminary Site Assessment:	(S/I/N/R) (U/E)	!!	'
3) Remedial Investigation:	(U/E)		
4) Health Exposure Assessment:	(Y/N/U/E)		''
5) Feasibility Study	(U/C)		// //
6) Remedial Action Plan:	(U/E)		
7) Public Participation Plans	(Y/N/U/E)		'
8) Post Remedial Action Mon.:	(Y/N/U/E)		'
• MK • Soil Borings 6	roundwater Impact		•
Free Product Present Benzene			
Enforcement Action Taken(Y/N)			
RAP Req(U/C) Date Approved			
Date Closed// Date	Excavation Starts	ed//	
Remedial Actions Taken			
Nost Recent 1/4	···· <del>-</del> ··· -		
Most Recent /4	report.	->> 4- 9-91	
		· · · · · · · · · · · · · · · · · · ·	
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Requested by M			
Requested by	• • • • • • • •	• • • • • • • • •	<i>f</i> • • • • • • • • • • • • • • • • • • •
(for clerical use only)Ac	ct. Clerk/_	LUST Clerk_	1111 cc

### WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 12/25/90-03/18/91

CONTRACTOR NO.: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N PETROLEUM: Y

SITE NAME: Cloverdale High School DATE REPORTED: 07/17/86

ADDRESS: 509 Cloverdale N.

CITY/ZIP: Cloverdale 95425

DATE CONFIRMED: 07/21/86

MULTIPLE RPs:

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 5 EMERGENCY RESPONSE:

RP SEARCH: S DATE UNDERWAY: 06/12/90 DATE COMPLETED: 06/12/90

PRELIMINARY ASSESSMENT: 'C DATE UNDERWAY: 12 - 5-90 DATE COMPLETED: -04/22/80

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 12-5-90 DATE COMPLETED: 3-26-91

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: TYPE: DATE TAKEN:

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED: DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-2548

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

MS Report Date: 03/28/91

4551

### LUST - Request for Action

Site Code 1D# 2426		Date.	3-12-91
Facility Name			
Facility Address 509 clove	rdale		
Change in Owner/Operator/Faci	lity Info		
Source of Funds(S/F) Substant Date Reported// Date			· · · · · · · · · · · · · · · · · · ·
Category (R/S) Case Type			
URF Rec// PSA Reques			
Well Plan Due / Wor			
BDS Notified/Prop 65/_/			
Sampling Plan Rec'd/			
e de la companya de La companya de la co	<u>Status</u>	Date Underway	Date Completed
1) RP Search:	(5/1/N/R)		//
2) Preliminary Site Assessment:	(3/0)	//	
<ol><li>Remedial Investigation:</li></ol>	(U/C)		//
4) Health Exposure Assessment:	(Y/N/U/C)		//
5) Feasibility Study	(U/C)		//
6) Remedial Action Plan:	(U/C)	//	
7) Public Participation Plan:	(Y/N/U/C)		//
8) Post Remedial Action Mon.:	(Y/N/U/E)		//
• MK • Spil Borings 6			
Free Product Present Benzene	Exceeds Action L	evelInteria C	/U Final E/U
Enforcement Action Taken(Y/N)			
RAP Req(U/C) Date Approved			(/H)
Date Closed// Date	•		·
Remedial Actions Taken			
Nother PSA Rec ->	1 27-00		
F > F   DC ->	11-27-90		
	· · · · · · · · · · · · · · · · · · ·		
Basuare and Aur A. D.			
Requested by N			
(for clerical use only)Ac	rt Clark /	/ INCT Plant	5,12,9,
ALDI ETELITET RES DUTAL TOTAL	L.	FD31 F161K-	<del></del>

### R RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 09/18/90-12/24/90

CONTRACTOR NO.:

49000

SOURCE OF FUNDS: F

SUBSTANCE:

12036

SITE NO.:

00002426

FEDERAL EXEMPT:

PETROLEUM:

Y

SITE NAME:

Cloverdale High School

DATE REPORTED:

07/17/86

ADDRESS:

509 Cloverdale N.

CITY/ZIP:

Cloverdale 95425

DATE CONFIRMED:

07/21/86

MULTIPLE RPs:

SITE STATUS

CASE TYPE:

CONTRACT STATUS:

**EMERGENCY** 

RESPONSE:

RP SEARCH:

DATE UNDERWAY: 06/12/90 DATE COMPLETED:

5

N

06/12/90

PRELIMINARY ASSESSMENT: C DATE UNDERWAY:

DATE COMPLETED:

01/22/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 12/05/90 DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

TYPE:

DATE TAKEN:

LUFT FIELD MANUAL CONSIDERATION:

3H

CASE CLOSED:

DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

RESPONSIBLE PARTY

CONTACT NAME: Sato, Donald

COMPANY NAME: Cloverdale Unified School Dist

PHONE #:

ADDRESS:

97 School St.

CITY/STATE: Cloverdale, CA 95425

MS

Report Date: 01/22/91

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LUST — Request for Action

Site ID#	PR0013846 RB	#_1TSO 108	
Site Name	Cloverdale High Sch	200	
Site Address	509 Cloverdale Blv		
Site City/Zip	Cloverdale		AP# 001-021-027
RP Contact Name			
RP Co. Name			
RP Mailing Add.			
RP City/State/Zip			
RP Phone	()		Multiple RPs (if yes, see back)
Source of Funds	(S/F) Substance(s)	(SC#)	Fed Exempt (Y/N) Petroleum (Y/N)
Date Reported	Date Confirmed	/ / Contract State	us (1-9)
URF Recd/_/	BOS Notified/_/	# MW # So	il Borings Wells Contam? (Y/N)
PSA Req//	/ Work Plan Due/_	/ Work Plan Rec.	/ / PSA WP OK / /
PSA Sum/	/ RI WP Req//_	*RI Underway/	/ Concur w/ RI WP//
RI Sum. Rec/_	/ RA Req/_/	RA Rec//_	RA OK/
RA Sum//	Post Rem. Mon. Report		,
	<u>Status</u>	Date Underway	Date Completed
Initial RP Sear	rch (S/I/R)		
Prelim. Site A	ssess (U/C)		
Remedial Inve	est. ` (U/C/I)	*see above	
Remedial Acti	ion Plan (U/C/I)		
Post Rem. Act	t. Mon (Y/N/U/C)	<u> </u>	
GW Impac t (Y/	/N) Drinking Water Impac t_	(Y/N) Excav. Started	
Benzene	(#ppb/TPH/FP) Priorit	у	····
Enforcement Actio	on: Type (1-6)	Latest Quarte	erly Report
Remedial Action:	Code(s)	Date / / Site	Inactive $\frac{1}{2}$ (L/R/Y) Date $\frac{1}{2}$ 1221 $\frac{1}{2}$
Other:	Gootracker upda		
		te in Emision	
	Note: For multiple RPs or infor	mation not included on thi	is page, please use back of form.
Requested by	2. Veryou		LUST Clerk

RP Contact Name		
RP Co. Name		
RP Mailing Add.		
-		
RP City/State/Zip		
RP Phone	<u>(                                    </u>	
RP Contact Name		
RP Co. Name		
RP Mailing Add.		
RP City/State/Zip		
RP Phone	(	
RP Contact Name		
RP Co. Name		
RP Mailing Add.		
RP City/State/Zip		
RP Phone		
Ar rhone		
Other information:		
· · · · · ·		
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	~	<del>.</del>

Site # <u>00002424</u>

Current database information can be obtained on the State web-based Geotracker system:

http://www.geotracker.swrcb.ca.gov

APN: 001-021-027

Agency Code: 49000 Source of Funds: F Substance: 8006619,12034

Site No.: --00002426 Federal Exempt: N Date Reported: 07/17/86

Site Name: Cloverdale High School Date Confirmed: 07/21/86

Address: 509 Cloverdale Blvd N

City/Zip: Cloverdale Multiple RPs: no

APN#:

SITE STATUS

Case Type: A Contract Status: 5 Emergency

Response:

RP Search: S Date Underway: 01/22/89 Date Completed: 01/22/8

Preliminary Assessment: C Date Underway: 01/22/90 Date Completed: 01/23/9

Remedial Investigation: U Date Underway: 05/11/94 Date Completed:

Remedial Action: Date Underway: Date Completed:

Post Remedial Action

Monitoring: Date Underway: Date Completed:

Enforcement Action

Taken: Y Type: 1 Date Taken: 10/16/9

Case Closed or Referred: Date Taken:

Remedial Actions Taken: Date:

MTBE Priority:

Prioritization Rating: 1C1

RESPONSIBLE PARTY

Contact Name: Dr. Sato

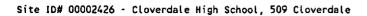
Company Name: Cloverdale Unified School Dist Phone #: (707)-894-1920

Address: 97 School St.

City/State: Cloverdale, CA 95425

Contact Type:

DB - lust-1/4 report Report Date: 09/21/01



Date of	Activity		Hours/		Emp.	ST	ОТ	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
07/06/95	215	Report/Workplan/Data Review	0.1	Ives, C.	2612	38.32	57.48	3.83	0.35	4.18
07/25/95	215	Report/Workplan/Data Review	0.2	Ives, C.	2612	38.32	57.48	7.66	0.70	8.36
10/18/95	215	Report/Workplan/Data Review	0.2	Ives, C.	2612	38.32	57.48	7.66	0.70	8.36
11/14/95	215	Report/Workplan/Data Review	0.1	Ives, C.	2612	38.32	57.48	3.83	0.35	4.18
12/21/95	215	-Report/Workplan/Data Review	0.3	Ives, C.	2612	38.32	57.48	11.50	1.05	12.55
								OT/ST	Ind Cost	Total
		Ţ	otal Hours					Total	Total	Charges
			0.9					34.48	3,15	37.63

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 07/01/00-09/30/00

Agency Code: 49000 Source of Funds: F Substance: 8006619,12034

Site No.: 00002426 Federal Exempt: N Date Reported: 07/17/86

Site Name: Cloverdale High School Date Confirmed: 07/21/86

Address: 509 Cloverdale Blvd N

City/Zip: Cloverdale Multiple RPs: no

APN#:

SITE STATUS

Case Type: A Contract Status: 5. Emergency

Response:

RP Search: S Date Underway: 01/22/89 Date Completed: 01/22/89

Preliminary Assessment: C Date Underway: 01/22/90 Date Completed: 01/23/90

Remedial Investigation: U Date Underway: 05/11/94 Date Completed:

Remedial Action: Date Underway: Date Completed:

Post Remedial Action

Monitoring: Date Underway: Date Completed:

Enforcement Action

Taken: Y Type: 1 Date Taken: 10/16/90

Case Closed or Referred: Date Taken:

Remedial Actions Taken: Date:

Prioritization Rating: 1C1

RESPONSIBLE PARTY

Contact Name: Dr. Sato

Company Name: Cloverdale Unified School Dist Phone #: (707)-894-1920

Address: 97 School St.

City/State: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 10/12/00

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 04/01/00-06/30/00

Agency Code: 49000

Source of Funds: F

Substance: 8006619,12034

Site No.:

00002426

Federal Exempt: N

Date Reported:

07/17/86

Site Name:

Cloverdale High School

Date Confirmed: 07/21/86

Address:

509 Cloverdale Blvd N

City/Zip:

Cloverdale

Multiple RPs:

APN#:

SITE STATUS

Case Type: A

Contract Status: 5

**Emergency** 

Response:

RP Search: S

Date Underway: 01/22/89 Date Completed: 01/22/89

Preliminary Assessment: C Date Underway: 01/22/90 Date Completed: 01/23/90

Remedial Investigation: U Date Underway: 05/11/94 Date Completed:

Remedial Action:

Date Underway:

Date Completed:

Post Remedial Action

Monitoring:

Date Underway:

Date Completed:

**Enforcement Action** 

Taken:

Type: 1

Date Taken:

10/16/90

Case Closed or Referred:

Date Taken:

Remedial Actions Taken:

Date:

Prioritization Rating:

RESPONSIBLE PARTY

Contact Name: Dr. Sato

Company Name: Cloverdale Unified School Dist

Phone #: (707)-894-1920

Address:

97 School St.

City/State:

Cloverdale, CA 95425

CI - lust-1/4 report

Report Date: 08/04/00

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 01/01/00-03/31/00

Agency Code:

49000 .

Source of Funds:

Substance:

8006619,12034

Site No.:

00002426

Federal Exempt:

Date Reported:

07/17/86

Site Name:

Cloverdale High School

Date Confirmed:

07/21/86

Address:

509 Cloverdale Blvd N

City/Zip:

Cloverdale

Multiple RPs:

APN#:

SITE STATUS

Case Type:

Contract Status: 5

Emergency

Response:

RP Search:

Date Underway:

01/22/89

Date Completed: 01/22/89

Preliminary Assessment:

C Date Underway:

01/22/90

Remedial Investigation:

U Date Underway: 05/11/94

Date Completed:

Date Completed:

Remedial Action:

Date Underway:

Date Completed:

Post Remedial Action

Monitoring:

Date Underway:

Date Completed:

Enforcement Action

Taken:

Type: 1 - Date Taken:

10/16/90

01/23/90

Case Closed or Referred:

Date Taken:

Remedial Actions Taken:

Date:

Prioritization Rating:

1C1

Contact Name:

Dr. Sato

Company Name:

Cloverdale Unified School Dist

Phone #:

(707) - 894 - 1920

Address:

97 School St.

City/State:

Cloverdale, CA 95425

CI - lust-1/4 report

Report Date:

04/11/00

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 10/01/99-12/31/99

Agency Code:

49000

Source of Funds:

Substance:

8006619,12034

Site No.:

00002426

Federal Exempt:

Date Reported:

07/17/86

Site Name:

Cloverdale High School

Date Confirmed:

07/21/86

Address:

509 Cloverdale Blvd N

City/Zip:

Cloverdale -

Multiple RPs:

no

APN#:

SITE STATUS

Case Type:

Α

Contract Status: 5 😘

Emergency Response:

01/22/89

RP Search:

S

Date Underway:

01/22/89

Ν

Date Completed:

. . . . . . . . . .

Preliminary Assessment: C

C Date Underway:

01/22/90

Date Completed:

01/23/90

Remedial Investigation:

U

Date Underway: 05/11/94

Date Completed:

Remedial Action:

Date Underway:

Date Completed:

Post Remedial Action

Monitoring:

Date Underway:

Date Completed:

Enforcement Action

Taken:

Υ.

Type: 1

Date Taken:

10/16/90

Case Closed or Referred:

Date Taken:

Remedial Actions Taken:

Date:

Prioritization Rating:

101

RESPONSIBLE PARTY

Contact Name:

Dr. Sato

Company Name:

Cloverdale Unified School Dist

Phone #: (

(707)-894-1920

Address:

97 School St.

City/State:

Cloverdale, CA 95425

CI - lust-1/4 report-

Report Date:

01/25/00

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY

UST CLEANUP PROGRAM
SITE SPECIFIC QUARTERLY REPORT
FOR 07/01/99-09/30/99

Agency Code: 49000 Source of Funds: F Substance: 8006619,12034

Site No.: 00002426 Federal Exempt: N Date Reported: 07/17/86

Site Name: Cloverdale High School Date Confirmed: 07/21/86

Address: 509 Cloverdale Blvd N

City/Zip: Cloverdale Multiple RPs: no

APN#:

· SITE STATUS

Case Type: A · Contract Status: 5 Emergency Response:

RP Search: S Date Underway: 01/22/89 Date Completed: 01/22/89

Preliminary Assessment: C Date Underway: 01/22/90 Date Completed: 01/23/90

Remedial Investigation: U Date Underway: 05/11/94 Date Completed:

Remedial Action: Date Underway: Date Completed:

Post Remedial Action

Monitoring: Date Underway: Date Completed:

Enforcement Action

Taken: Y Type: 1 Date Taken: 10/16/90

Case Closed or Referred: Date Taken:

Remedial Actions Taken: Date:

Prioritization Rating: 1C1

RESPONSIBLE PARTY

Contact Name: Dr. Sato

Company Name: Cloverdale Unified School Dist Phone #: (707)-894-1920

Address: 97 School St.

City/State: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: .10/15/99

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 04/01/99-06/30/99

Agency Code: 49000 Source of Funds: Substance:

8006619,12034

Site No.: 00002426 Federal Exempt: N Date Reported: 07/17/86.

Date Confirmed: 07/21/86 Site Name: Cloverdale High School

Address: 509 Cloverdale Blvd N

Cloverdale Multiple RPs: City/Zip:

APN#:

SITE STATUS

Contract Status: '5 Emergency Case Type:

Response:

01/22/89 01/22/89RP Search: Date Underway: Date Completed:

01/22/90 Date Completed: 01/23/90 Preliminary Assessment: C Date Underway:

Remedial Investigation: Date Underway: 05/11/94 Date Completed: U

Remedial Action: Date Underway: Date Completed:

Post Remedial Action

Monitoring: Date Underway: Date Completed:

Enforcement Action

10/16/90 Date Taken: Taken: Type:

Case Closed or Referred: Date Taken:

Remedial Actions Taken: Date:

Prioritization Rating: 1C1

RESPONSIBLE PARTY

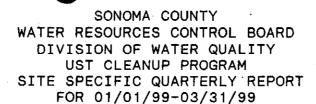
Contact Name: Dr. Sato

Company Name: Cloverdale Unified School Dist, Phone #: (707) - 894 - 1920

97 School St. Address:

City/State: Cloverdale, CA 95425

Report Date: CI - lust-1/4 report 07/16/99



Agency Code:

49000

Source of Funds:

Substance:

8006619,12034

Site No.:

00002426

Federal Exempt:

Date Reported:

07/17/86

Site Name:

Cloverdale High School

Date Confirmed:

07/21/86

Address:

509 Cloverdale Blvd N

City/Zip:

Cloverdale

Multiple RPs:

no

APN#:

SITE STATUS

Case Type:

Contract Status: 5

Emergency

Response:

01/22/89

RP Search:

Date Underway:

01/22/89

Date Completed: Date Completed:

01/23/90

Preliminary Assessment: Remedial Investigation:

Date Underway:

01/22/90 05/11/94

Date Completed:

Remedial Action:

Date Underway: Date Underway:

Date Completed:

Post Remedial Action

Monitoring:

Date Underway:

Date Completed:

Enforcement Action

Taken:

С

U

Type:

Date Taken:

10/16/90

Case Closed or Referred:

Date Taken:

Remedial Actions Taken:

Date:

Prioritization Rating:

RESPONSIBLE PARTY

Contact Name:

Dr. Sato

Company Name:

Cloverdale Unified School Dist

1C1

Phone #:

(707) - 894 - 1920

Address:

97 School St.

City/State:

Cloverdale, CA 95425

CI - lust-1/4 report

Report Date:

04/08/99

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 10/01/98-12/31/98

Agency Code: 49000 Source of Funds: F Substance: 8006619,12034

Site No.: 00002426 Federal Exempt: N Date Reported: 07/17/86

Site Name: Cloverdale High School Date Confirmed: 07/21/86

Address: 509 Cloverdale Blvd N

City/Zip: Cloverdale Multiple RPs: no

APN#:

SITE STATUS

Case Type: A Contract Status: 5 Emergency

Response:

RP Search: S Date Underway: 01/22/89 Date Completed: 01/22/89

Preliminary Assessment: C Date Underway: 01/22/90 Date Completed: 01/23/90

Remedial Investigation: U Date Underway: 05/11/94 Date Completed:

Remedial Action: Date Underway: Date Completed:

Post Remedial Action

Monitoring: Date Underway: Date Completed:

Enforcement Action

Taken: Y Type: 1 Date Taken: 10/16/90

Case Closed or Referred: Date Taken:

Remedial Actions Taken: Date:

Prioritization Rating: 1C1

RESPONSIBLE PARTY

Contact Name: Dr. Sato

Company Name: Cloverdale Unified School Dist Phone #: (707)-894-1920

Address: 97 School St.

City/State: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 01/22/99

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 07/01/98-09/30/98

Agency Code: 49000 Source of Funds: F Substance: 8006619,12034

Site No.: 00002426 Federal Exempt: N Date Reported: 07/17/86

Site Name: Cloverdale High School Date Confirmed: 07/21/86

Address: 509 Cloverdale Blvd N

City/Zip: Cloverdale Multiple RPs: no

APN#:

SITE STATUS

Case Type: A Contract Status: 5 Emergency

Response:

RP Search: S Date Underway: 01/22/89 Date Completed: 01/22/89

Preliminary Assessment: C Date Underway: 01/22/90 Date Completed: 01/23/90

Remedial Investigation: U Date Underway: 05/11/94 Date Completed:

Remedial Action: Date Underway: Date Completed:

Post Remedial Action

Monitoring: Date Underway: Date Completed:

Enforcement Action

Taken: Y Type: 1 Date Taken: 10/16/90

Case Closed or Referred: Date Taken:

Remedial Actions Taken: Date:

Prioritization Rating: 1C1

RESPONSIBLE PARTY

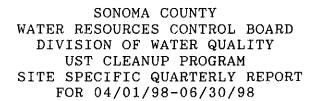
Contact Name: Dr. Sato

Company Name: Cloverdale Unified School Dist Phone #: (707)-894-1920

Address: 97 School St.

City/State: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 10/30/98



AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 8006619,12034

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale Blvd N

CITY/ZIP: Cloverdale MULTIPLE RPs: no

APN#:

SITE STATUS

CASE TYPE: A CONTRACT STATUS: 5 EMERGENCY RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

CASE CLOSED OR REFERRED: DATE TAKEN:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-1920

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 07/17/98

### SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 01/01/98-03/31/98

AGENCY CODE:

49000

SOURCE OF FUNDS:

SUBSTANCE:

12036

SITE NO.:

00002426

FEDERAL EXEMPT:

DATE REPORTED:

07/17/86

SITE NAME:

Cloverdale High School

DATE CONFIRMED:

07/21/86

ADDRESS:

509 Cloverdale Blvd N

CITY/ZIP:

Cloverdale

MULTIPLE RPs:

no

APN#:

SITE STATUS

CASE TYPE:

Α

CONTRACT STATUS: 5

**EMERGENCY** 

RESPONSE:

RP SEARCH:

S

DATE UNDERWAY: 01/22/89 DATE COMPLETED:

01/22/89

PRELIMINARY ASSESSMENT:

DATE UNDERWAY:

01/22/90

F

N

DATE COMPLETED:

01/23/90

REMEDIAL INVESTIGATION:

DATE UNDERWAY: U

05/11/94

DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

Y

TYPE: 1 DATE TAKEN:

10/16/90

CASE CLOSED OR REFERRED:

DATE TAKEN:

REMEDIAL ACTIONS TAKEN:

DATE:

### RESPONSIBLE PARTY

CONTACT NAME:

Dr. Sato

COMPANY NAME:

Cloverdale Unified School Dist

PHONE #: (707) - 894 - 1920

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

CI - lust-1/4 report

RWQCB NC

Report Date: 04/10/98 SONOMA COUNTY
WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY
UST CLEANUP PROGRAM
SITE SPECIFIC QUARTERLY REPORT
FOR 10/01/97-12/31/97

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale Blvd N

CITY/ZIP: Cloverdale MULTIPLE RPs: no

APN#:

SITE STATUS

CASE TYPE: A CONTRACT STATUS: 5 EMERGENCY RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

CASE CLOSED OR REFERRED: DATE TAKEN:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-1920

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 01/16/98

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 07/01/97-09/30/97

AGENCY CODE:

49000

SOURCE OF FUNDS:

SUBSTANCE:

12036

SITE NO.:

00002426

FEDERAL EXEMPT:

DATE REPORTED:

07/17/86

SITE NAME:

Cloverdale High School

DATE CONFIRMED:

07/21/86

ADDRESS:

509 Cloverdale Blvd N

CITY/ZIP:

Cloverdale

MULTIPLE RPs:

no

APN#:

SITE STATUS

CASE TYPE:

A

CONTRACT STATUS: 5

**EMERGENCY** 

RESPONSE:

RP SEARCH:

S

DATE UNDERWAY: 01/22/89

9 DATE COMPLETED:

01/22/89

PRELIMINARY ASSESSMENT:

C

DATE UNDERWAY: 01/22/90

O DATE COMPLETED:

01/23/90

REMEDIAL INVESTIGATION:

U DATE UNDERWAY:

05/11/94

F

N

DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

Y

TYPE: 1

DATE TAKEN:

10/16/90

CASE CLOSED OR REFERRED:

DATE TAKEN:

REMEDIAL ACTIONS TAKEN:

DATE:

RESPONSIBLE PARTY

CONTACT NAME:

Dr. Sato

COMPANY NAME:

Cloverdale Unified School Dist

PHONE #:

(707)-894-1920

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

CI - lust-1/4 report

Report Date:

10/10/97

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 03/25/97-06/30/97

AGENCY CODE:

49000

SOURCE OF FUNDS:

SUBSTANCE:

12036

SITE NO.:

00002426

FEDERAL EXEMPT:

DATE REPORTED:

07/17/86

SITE NAME:

Cloverdale High School

DATE CONFIRMED:

07/21/86

ADDRESS:

509 Cloverdale Blvd N

CITY/ZIP:

Cloverdale

MULTIPLE RPs:

nο

APN#:

SITE STATUS

CASE TYPE:

Α

CONTRACT STATUS: 5

EMERGENCY

RESPONSE:

RP SEARCH: S

DATE UNDERWAY:

01/22/89

F

N

DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT:

CI

DATE UNDERWAY: 0

01/22/90

DATE COMPLETED: 01

01/23/90

REMEDIAL INVESTIGATION:

U DATE UNDERWAY:

05/11/94

DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

Y

TYPE:

1

DATE TAKEN:

10/16/90

CASE CLOSED OR REFERRED:

DATE TAKEN:

REMEDIAL ACTIONS TAKEN:

DATE:

RESPONSIBLE PARTY

CONTACT NAME:

Dr. Sato

COMPANY NAME:

Cloverdale Unified School Dist

PHONE #:

(707)-894-1920

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

CI - lust-1/4 report

Report Date:

08/29/97

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 01/01/97-03/24/97

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale Blvd N

ζ

CITY/ZIP: Cloverdale MULTIPLE RPs: no

SITE STATUS

CASE TYPE: A CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

CASE CLOSED OR REFERRED: DATE TAKEN:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-1920

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 07/25/97

Algertung Was Earth Metrics

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 12/19/95-03/25/96

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale Blvd N

CITY/ZIP: Cloverdale MULTIPLE RPs: no

SITE STATUS

CASE TYPE: A CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

CASE CLOSED OR REFERRED: DATE TAKEN:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-1920

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 05/31/96

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 09/26/95-12/18/95

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale Blvd N

CITY/ZIP: Cloverdale - MULTIPLE RPs: no

SITE STATUS

CASE TYPE: A CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

CASE CLOSED OR REFERRED: DATE TAKEN:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-1920

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 01/18/96

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 07/01/95-09/25/95

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/35

ADDRESS: 509 Cloverdale Blvd N

CITY/ZIP: Cloverdale' MULTIPLE RPs: no

SITE STATUS

CASE TYPE: A CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/8

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/91

CASE CLOSED OR REFERRED: DATE TAKEN:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-1920

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 09/27/94-12/19/94

AGENCY CODE:

49000

SOURCE OF FUNDS:

SUBSTANCE:

12036

SITE NO.:

00002426

FEDERAL EXEMPT:

DATE REPORTED:

07/17/86

SITE NAME:

Cloverdale High School

DATE CONFIRMED:

07/21/86

ADDRESS:

509 Cloverdale Blvd N

CITY/ZIP:

Cloverdale

MULTIPLE RPs:

no

### SITE STATUS

CASE TYPE: 0

CONTRACT STATUS: 5

EMERGENCY RESPONSE:

RP SEARCH:

S

DATE UNDERWAY: 0

01/22/89 DA

DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT:

DATE UNDERWAY:

01/22/90

F

Ν

DATE COMPLETED:

01/23/90

REMEDIAL INVESTIGATION:

U DATE UNDERWAY:

05/11/94

DATE COMPLETED:

REMEDIAL ACTION:

DATE UNDERWAY:

DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING:

DATE UNDERWAY:

DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN:

Υ

TYPE: 1

DATE TAKEN:

10/16/90

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED:

DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN:

DATE:

### RESPONSIBLE PARTY

CONTACT NAME:

Dr. Sato

COMPANY NAME:

Cloverdale Unified School Dist

PHONE #:

(707)-894-1920

ADDRESS:

97 School St.

CITY/STATE:

Cloverdale, CA 95425

CI - lust-1/4 report

Report Date:

02/28/95



<b>RP Contact Name</b>	
RP Co. Name	
RP Mailing Add.	
_	·
RP Phone	
DD Control Nome	·
RP Co. Name	
RP Mailing Add.	
RP City/State/Zip	
RP Phone	
RP Contact Name	
RP Co. Name	· .
RP Mailing Add.	•
RP City/State/Zip	•
RP Phone	
Other information:	
•	
<u> </u>	

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 07/01/94-09/30/94

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale Blvd N

CITY/ZIP: Cloverdale MULTIPLE RPs: no

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED: DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-1920

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 11/03/94

# SONOMA COUNTY WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY UST CLEANUP PROGRAM SITE SPECIFIC QUARTERLY REPORT FOR 03/15/94-06/30/94

AGENCY CODE: 49000 SOURCE OF FUNDS: F SUBSTANCE: 12036

SITE NO.: 00002426 FEDERAL EXEMPT: N DATE REPORTED: 07/17/86

SITE NAME: Cloverdale High School DATE CONFIRMED: 07/21/86

ADDRESS: 509 Cloverdale Blvd N

CITY/ZIP: Cloverdale MULTIPLE RPs: no

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 5 EMERGENCY

RESPONSE:

RP SEARCH: S DATE UNDERWAY: 01/22/89 DATE COMPLETED: 01/22/89

PRELIMINARY ASSESSMENT: C DATE UNDERWAY: 01/22/90 DATE COMPLETED: 01/23/90

REMEDIAL INVESTIGATION: U DATE UNDERWAY: 05/11/94 DATE COMPLETED:

REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:

POST REMEDIAL ACTION

MONITORING: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION

TAKEN: Y TYPE: 1 DATE TAKEN: 10/16/90

LUFT FIELD MANUAL CONSIDERATION: 3H

CASE CLOSED: DATE CLOSED:

DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: DATE:

RESPONSIBLE PARTY

CONTACT NAME: Dr. Sato

COMPANY NAME: Cloverdale Unified School Dist PHONE #: (707)-894-1920

ADDRESS: 97 School St.

CITY/STATE: Cloverdale, CA 95425

CI - lust-1/4 report Report Date: 08/19/94

STATE WATER RESOURCES CONTROL BOARD DIVISION OF CLEAN WATER PROGRAMS
UST LOCAL OVERSIGHT PROGRAM

SITE SPECIFIC INVOICE

Inv. # 00036

249 Page

Date 05/26/95

Contract#: 4-021-550-0

Site Code: 00002426

Source of Funds: F

Substance: 12036

Petroleum: Y

Site Name: Cloverdale High School

Address:

509 Cloverdale

Date First Reported: 07/17/86

City:

Cloverdale, 95425-

>>>> Labor Costs <<<<

	Date of	•••••	Empl. Class	Activity	Hours		-	ates (\$)	Indirect Cost	Total Labor
	Work	Employee Name	Code	Code	ST	от	ST	ОТ	(.0909)	Costs (\$)
1	01/11/95	Ives, C.	2612	215	0.4		34.84	52.26	.0909	15.21
				Total	This Site		13.94	0.00	.0909	\$ 15.21

### COUNTY OF SONOMA

Public Health Department Environmental Health Division HAZARDOUS MATERIALS SECTION 1030 Center Drive - Suite A Santa Rosa, CA 95403-2067

GROUN	ND WATER CASE?: YES	NO / UNKNOWN					
SITE	D#: 2426 DATE IN LUST: 6-14-90 DATE CLOSED:						
	SITE NAME:	Cloverdale High School					
	SITE ADDRESS:	509 cloverdale Blod.					
		Clavedale					
	R.P.NAME&PHONE#:	Contact: 1920 Donald Soto 707-894-2548					
	PROPERTY OWNER:	Cloverdale Unified School District					
		Cloverdale Unified School District Legal servis: Sugame Red 524-2690					
•	TANK OWNER:						
	TANK OPERATOR:						
	,						
	CONSULTANT(S):	Heryog & assoc Marc Seeley 707-792-56.					
		:					
	•						

RP: Donald Sato 707-894-2548

(G) MW-6 1-23-90: Rec'd. U.T. PSA Summary report 6-14-90 Entered into LUFT Program 6-28-90: G. Randall wrote RP with comments on summery report. 10-16-90: Letter sent to RP inquiring as to the status of proceeding with the site assessment. Response expected by October 26, 1990. 10-25-90: Mesonse recid from consultant (Mark Seely) 15-31-90: Spoke & Lica Houses - She to address G. R.'s letter and Submit a workgelan for further work grow to 11-16-90 11-13-90: Personse rei'd from Hengos addressing since in G.P.'s letter dones round mi G.12.'s letter of June 28, 19:00 were addressed, workedon to define school of continuation is forthcoming, 11-27-90: Worlsplan/permit reid. 12-5-90: Boring drilling premit approved -12-21-90: Drilling scheduled for 9:00AM. January 2, 1991. 1-2-91: Site of to descrie drilling of berings. 2-25-91: Degled better regressing summy summy summy summy 3-11-91: Spoke = Liea Homens (Herzog) - hronted Tinek extension for summittee -Submittal due 3-22-91. 3-22-91: Rec'd. message from Lisa (Abryo) Report almost complete - will be mailed monday 3/25. 3-26-91: Rec'd. Summary report for Supplemental investigation 4-9-91: Dropped regionese to AP/Consortant Response one by 5-3-91. 4-11-91: Beid G.W. montoring report-4-18-91: Rec'd message from Loa (Hornog)-6.w. Sampling to occur in f. m. on 4/23/91. Site inspirition - consentant not on site

Harryon (Mais-Seeley) -> 792-5613 Next method response to my 4-9-9/ letter Next scheduled for 5-13-91 5-23-91: Site inspection to observe monitoring and sampling activities - 2:30 pm -> consultant 7-22-91: Rec'd. 14 Report date 7-16-91. Monthly montoring / /y sampling to continue (TPI+/ D-G recluding over time - BTXE ALL N.E. 10-30-911 Recid Line / 14 report doto oct. 25, 1991 10/31-14/1/91: Brismed final 1/4 report and file. Droppe letter stating remediation of and \$ 6.00. in more maded. World. done 12-18-91: Spoke to Sugarme Red (524-25% She is preparing a letter in response to my letter of 11-4-91. France work fill to hampened dut to lack of being new or the of his sis in which 12.27-01 Red. little from RF in regener to my 11-4-131 little. Iman, conditions preclude from from property funding. Weed to call RP and discuss status before writing a letter. 1-13-92: Spoke & Sugarme Reed (Yegal Som)
she to update me at and of next week (1/24) - I to call her. 1-27-92: Spolo = Sugarme Red -She has confirmed that the RP has submitted his 352004 application; and that a proposal from Heryog is expected in 2 weeks. Ck states 2-18-92 2-18-92: Spoke to Soyama feed-Proposal received from Herzog-RP completing application to Office of Local assistance - Defined maintanance many - Call Sugame in 2 weeks for welste (3-18-92).

3-18-92: Left message for Ms. Reed to Call on status.

-92: Left message for Ms Read to call on status of the site -92: Left message for Ms Read to call on status of the site she has been in Som Diego and leaves for Humbol med. - She
may not be able to call back until next week. (ch status 4-2-92) 2: Left message for Sugame Reed to call on status of site. (de st also 4-14-92) 92: Spoke to Sugame Raed - She wil be talking to the District to see if any progress has been made. She will coul to update me once she contacts the District. she feels there is a problem with the state office of Local assistance. (ck status 5.5-92) 92'. Spoke to RP's astorney (Suyanne Reed) - She is meeting with Dr. Sato on 5/6, she will ask status of obtaining Office of Joeal assistance - Defferred Maintenance Manits -The will also send copies of correspondence and rejection letter from 2004 grant office (forther into needed to be placed on the list. 2-92 Reid. copies of SB 2004 Request for Further action and a proposal for soil remediation from Haryog. (RP submitted to state requested info). che status 7/28/92 8-92; Left mussage for Susame Red to call on status. (de 12jus 8.26-92) -92: Spoketo, Syanne Reed - School Seduct is working to state -Deferred monthnesse claim; needs amendment - (ok (3:12pm) Reid. masage from Ms. Reed. - Claim for Referred Maintenance (3:12pm) Reid. masage from Ms. Reed. - Claim for Referred Maintenance fundo on September agenda - no gonzante but appears to be making progress. (ck status 10-14-92) =3-92: Spela to Dr. Son Soto (RP) - scheduled meeting for Wed, 9-30@11:30. 25-92: Spoke to Scott Gibson (PACE) - Sampling of soil stockpiles scheduled for 10-1-92 @ 2100pm 30-92: Met with Dr. Sqto (PP) - We decided that Dr. Sato medo to retain a consultant and then schedule a meeting next week to discuss fiture reg's and timeframe to complete them. He has an application for hardship funds (Defended Maintenance) with the state, state Should decide on funding in November. (ck s) olmo 10 12 92) Site inspection to observe sampling of stockpiled soils. (ck 3+ glus 10 - 22 - 92) 0-19-92: Rec'd. lob. sample resusts from soil stockfiles.
Reviewed on 10/20. TPH. Diesel in soils. 6.21-92: Spoke to Don Sato - I explained that dissel is still present in the soil in will be moving soil to another area of the site Le placed in and connect the remediation optione. (chestome 11-2-92)

10-26-92: RP (Don Sols) left mes indicating meeting
10-26-92: RP (Do. Solo) left mes indicating meeting is scheduled & Don MEEdwords on 11-2-92 @ 13:00, P.  11-2-92: Met with PP and Don MEEdwords at Transteon, See notes in file.
Transtech. See weed in fill.
(ck status 12-17-92)  12-10-92: Spoke to Don MS Edwards. Funch Meeting scheduled on 12/22 011:30 to discuss workers. School Broad
12-22-92: Meeting t RP and Consultant (Transtech) - Board of Education approved consultants proposal. formal Workplan due in a couple of weeks.  (che + Latus 1-21-93)
Found Workerlan due in a couple of weeks
(ch +1 olus 1-21-93)

### **COUNTY OF SONOMA**

Department of Health Services Environmental Health Division Santa Rosa, CA 95403

Site ID#:	2426-F PR0013846	Case Type:	A-Groundwater		
Reg. Board ID#: 1TSO108		Date in LUST: 6/14/90		Date Closed 7/22/11	:
Site Name:	Cloverdale High Scho	ool	·····		
Site Address:	509 Cloverdale Blvd. Cloverdale, CA 9542				
RP Name & Address:	Ms. Claudia Rosatti, Cloverdale Unified So 97 School Street Cloverdale, CA 9542	chool District			
	Phone:	Fax:	Phone:		Fax:
Property Owner & Address:					
Tank Owner & Address:					
Tank Oper. & Address:					
Consultant					
& Address:	Phone:	Fax:	Phone:		Fax:

she has been in Drigo and leaves for thumbolt on wed. - she may not be able to call back with next week. (ck stotus 4-2-92) 9-92: Left message for Sugame Reed to call on status of site. (de st stus 4-14-92) 1.15-92: Spoke to Sugarne Reed - She will be talking to the District to see if any progress has been made. She will call to update me once she contacts the District, she feels there is a problem with the state office of Local Assistance. (ck status 5.5-92) -5-92'. Spoke to RP's octorney (Suyanne Reed) - She is meeting with Dr. Sato on 5/6, she will ask status of obtaining Office of Joeal assistance - Defferred Maintenance Monies she wildes send apris of correspondence and rejection letter from 2004 grant office (further mife needed to be placed on the list. 22-92. Reid. Copies of SB 2004 Request for Further action and a proposal for soil remediation from Haryog. (RP submitted to state reguested unto). che'status 7/28/92 28-92; Left mussage for Susanne Red to call on status. (cle 349 tus 2 - 26-92) 4-92: Spokets Syamme Reed - School District is working t state -Deferred in antonous claim; needs amendment - (ok Status 9-21-92) 21-92: (1:50) Left massage for Suyanne Red to call an etatus of the site.
(3:12 pm) Reid. message from Ms. Reed. - Claim for Referred Maintenance funds on September agenda - no gourantee but appears to be making progress. (ck status 10-14-92). - 23-92: Spoke to Dr. Don Soto (RP) - scheduled meeting for Wed, 9-30 @11:30. 9-25-92: Spedce to Scott Gibson (PACE) - Sampling of soil stockpiles scheduled for 10-1-92 @ 2100pm -30-92: Met with Dr. Sato (RP) - we deided that Dr. Sato med to retain a consultant and then schedule a meeting next week to discuss future reg's, and timeframe to complete them. He has an application for hardship funds (Deferred Manitenance). with the state. State Should decide on funding in November (ck s) alus 10 13-92) Site impaction to observe sampling of stockpilled soils. (ck 34 glus 10 - 22 - 92) -19-92: Rec'd, lab. sample resusts from soil stockpiles.
Reviewed on 10/20. TPH. Direct in soils. 0-21-92: Spoke to Don Soto - & explained that disselie still present in the soil, he will be moving soil to another area of the site Le sustino and a som se used by student ag. Dept. Soil will be placed on a . I conside trisquen He is also making opport. with Den 1/26 deneral I diance to ture remediation actions. (clistofue 11-2-92) x

2p: Domata = 2548

(G)

MW-6

1-23-90: Recd UT. PSA Summery report 6-14-90: Entered into LUST Program 6-28-90: G. Randall wrote RP with comments on summery report. 10-16-90: fetter sent to RP inquiring as to the statue of proceeding with the site assessment Response expected by October 26, 1990. 10-25-90: Message ried from Consultant (Marke Seely) 10-31-90 Spoke & Lica Homens - She to address G. 2.'s letter and Subunt a worlder for further work prior to 11-16-90 11-13-90 Personse reid from Haryog eldresing assus in 6.12's lister Jones round in 6.12's little of June 28, 1990 were addressed. Workflow to obtain select of contamination is forthcoming. ""
11-27-90: Worlgelon/pennit reid. 12-5-90: Boring drilling pound opproved -12-21-90: Drilling scheduled for 9:00AM. January 2, 1991. 1-2-91: Site of to absence drilling of baring. 2-25-91: Dry ted below regressing summery 3-11-91: Spoke = Lisa Howas (Harryog) - hronted Tweek extension for susmitted -Submittal due 3-22-91. 3-22-91: Rec'd message from Lioa (Abry) Report almost complete - will be mailed monday 3/25. 3-26-91: Pecid. Summary report for supplemental investigation 4-9-91: Dropped regions to AP/Consultant Response due de 5-3-91. 4-11-91 facid G.W. montoring report-4-19-91: Rec'd mosage from Lioa (Horgog)-6. W. Sampling to occur in p.m. site on 4/23/91. Sile inspector - consectant not on site

Herryog (Mark Seeley) -> 792-5613 Next method for 5-13-91 Sampling 5-23-91: Site inspection to observe monitoring and sampling activities - 2:30 pm -> consultant not one site. 7-22-91: Rec'd. /y Report date 7-16-91. Montrely monitoring / Yir sompling to continue. (TPH/D-6 reducing over fine - BIXE AU N.D.) 10-30-911 Read 1 and 14 report dated Oct. 25, 1991 10/31-11/1/91: Beviewed final 14 report and fill. Brothed latter stating remediations of soil & 3. W. is used no aded. Worlden due to 12-13-0. 12-18-91: Spoke to Sugar a Pard 521-2696 the is proporting a lettre in proporte to my letter of 1-11-91. Letine work find a issinger I due to lack of fundo. Outside for doing some so being recent child lit office yetch 12.27-91: Red. lotte from KR conditions from 11-4-91 letter financial conditions produced from Los of seeds funding ontacks funding. Weed to call pp and dieduce status before writing a letter. 1-13-92: Spoke & Suyamme Read (Yegal Sem) she to update me at and of next week (1/24) - I to call her. 1-27-92: Spole & Sugarne Red -She has confrined Floor the RP has submitted his 3152004 opplie ation, and thigh a proposal from Heryog is expected in 2 wicks. Ch status 2-18-92 2-18-92: Spoke to Sonjame Reed-Proposal received from Herryg-RD completing application to Office of Local assistance. - Defended on 2 weeks for inteste (3-18-92).

3-18-92: Yest message for Ms. Reed to Call on status.

Site ID#: <u>2426</u>

10-26-92: RP (Don Sato) left mag undicating meeting
10-26-92: Pf (Don Soto) left mag indicating meeting is & heduled & Don ME Edwards on 11-2-92 @ 13:00 pm 11-2-92: Met with Pl and Don ME Edwards at Transted. See notes in file.
Tronotech. See notes in fill. (ck status 12-17-92)
12-10-92: Spoke to Don MS Edwards. Tunch Meeting scheduled
12-10-92: Spoke to Don MS Edwards. Junch Meeting scheduled on 12/22 @11:30 to discuss washelm. School Board approved proposal.
Proord of Education approved consultants proposal.
12-22-92: Meeting & RP and Consultant (TransTech) - Board of Educationi approved consultants proposal.  formal Workplan due in a couple of weeks.  (ch + totus 1-21-93)
•
· · · · · · · · · · · · · · · · · · ·

JAN 1 7 1997 Read / via done on the 227-4366 and leave. JAN 22 1997 1.10 5+1 Sharri ATKNEREM above. review [CI 215 Continued file review AUG 18 1997 Reviewed letter to RP. Mw sampling SRS must be done [CI 215.7 AUG 19 1997 Review and RP. SEP 23 1997 Reviewed ile Reed msg from District Superintendent. [CIZ15 to Mike Carey. SEP 2 4 1997. DISCUSSE. status. Due date 97. NOV 20 1997 27/1997 ( arey Carea 8260 was CI 212 Revd and MAR 1 3 1998 bennine 1. OI 215

DEC 8 2000
Reviewed files. It species that
ho (vreethre active) were even tune. must-
Lestroyer? lost? neer to disam of cliff;
Both potential closure at history of site.
(d5215)
DEC 12 2000 Continues review of fles stes from
another claudede site show, potential for a
couple of wells wir wood of site.
(35205)
DEC 15 2000
Revie site of Cliff They have not responsed to Cliff 12-15-100 letter. Water & letter
asking the I more runt of sampling we to delay.
[CI 204 16215]
DEC 18 2000
Finished letter mailed letter after Deff's
10N 1 0 0004
JAN 10 2001 Rote a my for Sonn Richardson
W (LOV united swool dist. The Siz New Lave
- CU-hore George Godbinott to Following of Go- lette
MAR 0 6 2001
Rue letter from George Goobs-off Prenchez garner
as to why as to house Samper of not reight Sypties
Eisposel Escentator Disame of Cliff. the new letter/regat
nor stamped no additional simplify, Agree to submit
ccs for closure. I left a may al george - court rock
where waste was Howlet to and Eispored who
Worker 0 ~ (CS. [25207, (7201)

MAR 0 9 2001  MAR 0 9 2001  MAR 0 9 2001  MAR 0 9 2001  Callet George (revisans) to get clarification  On white musters milest - can't rest it the leg  ne a my float the callet manimum oil so  to get - tetter copy. (CS submitted in  the le mail I get wash mater dispuse info.  APP 0 9 2001  APR 0 9 2001  Ret documentation on dispused of his  Remarker (CS all restricts to CS and CIST  APR 1 0 2001  APR 1 1 2001  APR 1 1 2001  APR 1 1 2001  APR 1 20	MAR 0 8	2001
MAR 0 9 2001  Callet George Coolbanolf to get clarification  On white houses annitest - can't reak it. Lite (a  ne a my flat the callet maximum oil so  to get - returning CCS submitted in  hold unit I get wask unter dispuse info.  APR 0 9 2001  APR 0 9 2001  Received the waster was transported to  APR 1 0 2001  Received CCS Cliff reviewed  APR 1 0 2001  CCS all reviewed by cith to jegs for  Ole Jos signaine.  CCS all reviewed by cith to jegs for  Ole Jos signaine.  CCS all reviewed by cith to jegs for  Ole Jos signaine.		(O-+'> to work o- Closure
MAR 0 9 2001  (	Draf	tel CCS. CI. St. received.
MAR 0 9 2001  (p-t' > to work or closure as co  Callet George Gowland to get clarification  On White howes mortest - con's rest it. He re  ne a ning that he callet maximum oil so  to get a setter cappy. (CS submitted in  hold unxl I get wash water dispuse info.  (d5 207)  APR 0 3 2001  APR 0 9 2001  Resulting to submit cas until he rets  we know there wester water uns transported to  (d52,2)  APR 1 0 2001  Resulting to committee on dispused of the  APR 1 0 2001  CCS at residued by crift to jegs for  Ole JJ: 5 Signature (d5207)  CCS at residued by crift to jegs for		[5254 CI301]
Callet George Godonolf to get clarification  On White Loviers moritest - con't rent it. The leg  ne a my that he callet manimum oil see  to get a retur copy. (CS submitted in  hold until I get waste unter disposal info.  (db 20t)  APR 0 3 2001  Left - my for george Godonoff  I am with to sumit cas with he cets  we know there waste water on transported to  (db 20t)  APR 0 9 2001  Ret to conservation on transported to  (db 20t)  APR 1 0 2001  Proting letter, request for Colour  Cas all reviewed by citif to jegs for  Ole Jobs Signature. (db 20t) CIDA		
Callet George Godsanolt to get clarification  On Waste houses montest - cont rest it. He leg  ne a night that the callet maximum oil so  to get - better copy. (CS submitted is  from wax of get waste water to spood into.  APR 0 3 2001  Left - mon for george godsanolt  Tem with to submit ces which he cets  we know there weste water was transported to  APR 0 9 2001  Ret to conservation on dispusal of to a  Remover to CCS - Cliff remove to  APR 1 0 2001  Protect cured by citel to jegl for  Ole Jobs Signature. (ds 2007 CIDA	INFAIL O J COU.	( dat' & to work on closure a & CC
APR 0 9 2001  Re Commentation on the contract of the contract	Caller	George Godsmoot to get clarification
APR 0 9 2001  Re Lower Rect Copy. (CS Submitted is book of the copy). (CS Submitted is formed to submit cos which he cets we know where we can be water on transported to about the copy of the copy o	0~ WL	she houses or milest - cont rect it. He le
APR 0 9 2001  Re Lower Rect Copy. (CS Submitted is book of the copy). (CS Submitted is formed to submit cos which he cets we know where we can be water on transported to about the copy of the copy o	ne a n	sy that he callet maximum oil so
APR 0 9 2001  APR 1 0 2001  APR 1 0 2001  APR 1 0 2001  CCS CU CESTERED by CITCH by Jegs Functions	to 9	et a better copy. ((5 submitted is.
APR 0 3 2001  Left = of for george Gussinoff  I am withing to signiff also with the cets  we know there waste with me transported to  [dsz.z]  APR 0 9 2001  Reft to consider and the considering of the  Reft to 2001  APR 1 0 2001  Pr-21-z letter, request for Cluster  CCS at reviewed by cittle to jegs for  Ole: J. s signifier (ds 2017 CIDE	Jra16	Unx I get wask mater \$1.50 was into.
APR 0 9 2001  Recover Ket Ces Clish recovered by Control to Clish  Cas all recovered by control to Jegs for Ole 155.5 signales (db 207 CI20)	<del> </del>	[25207]
APR 0 9 2001  Recover Ket Ces Clish removed to Clish  APR 1 0 2001  Per-22 letter, request for Clish  Ole 15 5 signature Cts	APR 0 :	3. 2001
APR 0 9 2001  Recover Ket Ces Clish recovered by Control to Clish  Cas all recovered by control to Jegs for Ole 155.5 signales (db 207 CI20)		Left = ms for george gussinoff
APR 0 9 2001  The torrespond of the Transported of	I cm	writing to susmit ces while lets
APR 0 9 2001  Received to conservation on dispused of 150.  Received Keet Crs. Clish remarks  APR 1 0 2001  Pro-Einz letter, request for Clish  CCS at resisted by criff to jegl for  Ole: Jis signature. Cdy 2007 CIDE		
APR 0 9 2001  Received to concertation on dispusal of 40.  Received Crs. Clish received  APR 1 0 2001  Pro-22 letter, request for Clish  CCS all received by crift to jegs for  Ole 155.5 Signature. Cts 2007 CIDE		( ひつて・ こ )
APRIO 2001  Person letter, request for Cluster  CCS cel resident by CF. Feb. to jego for  Ole: JJ: 5 Signature. Cts 2007 CIDE		9 9 2001
APRIO 2001  Person letter, request for Cluster  CCS cel resident by CF. Feb. to jego for  Ole: JJ: 5 Signature. Cts 2007 CIDE		Til Laconeration on dispused of 40-
	Rewo.	cot Cist Clist resignes
	APR	1 A 2001 CIZUY
		Pr-Eiz letter, request to- Chim
	<u>Ccs</u>	al reviewed by coff to jego for
	<u>.</u>	10: JJ: 5 Signature (ds 207 CI20
APR 112001  J J Signes (CS. Posles pending Notice in Lobby, made appropriate copies. Mailed all today. (CS to McRwalp. (25207)	<del>-</del>	
Notice in Lubby, made appropriate copies. Mailed all today. (Cs to nerwold. (25 207)	<u> ΔPR 1-1</u>	7001
today. (CS to nerwain. (25 207)	Litt T T	JJS: que & CCS. Postes printing
tiday. (Cisto nervoirs. (25207)	. Notre ?	- Lobby, wase apropries copies. Mailed all
	today.	CCS to nerwoen. (25207)

JUN 6 2001 - Sporce to Both Leas - nervery
registing closure. We discoved the site, his date,
map gradient, Site boday. She sicie she will
(o-co- w/ c coope. [25212]
JUN 192001 Res CCS and Reg. Board evacurance
Dratlez Pensing cetter for destruction y mais
to cliff to sep6.
1 Fus 26)
JUN 2 0 2001
miller publicate to hay
St52.57
,

- 07/18/94
- Spoke to Michael Hogan of CERTIFIED/Earth Metrics (415) 742-9900. Client wants to begin work. Please review work plan. Reply: I will try to get to WP this week and will call if I have problems. Stamped Signature by RG, RCE or REG is one thing that will be needed. [CI/212]
- 07/19/94 (Tue) Set up computer log. Transferred 07/18/94 entry. [CI/215]
- 07/27/94 (Wed) Wrote response (dated 07/28/94) to workplan received on May 11, 1994. [CI/215]
- 07/28/94 (Thu) Reviewed above letter with Mary A. Made entries above. [CI/204]
- 08/02/94 (Tue) Revised 7/28/94 workplan response. [CI/215]
- 08/16/94 (Tue) Telephone call from consultant Don Bransford. He is revising the WP. He asks: What level must soil be cleaned up? I discussed Mary Allen. Reply: NCRWQCB still requires cleanup to ND. What revisions must be make to the WP before resubmittal? Reply: I will review file and call him back. [CI/212]
- 08/18/94 (Thu) TC to Fred Hayden. Discussed the need for a revised workplan to include Health & Safety Plan,
  Statement of Qualifications, HW Training Certificates for employees, Standard Operating
  Procedures, and all the items indicated in my letter dated August 2, 1994. We also discussed the
  need for the Waste Discharge Permit from the NCRWQCB because they proposed treatment of the
  soil. I supplied him with Joan Fleck's phone number. Dr. Sato hopes that the work can begin prior
  to start of the school year. I don't see why this can't happen if he can get the Waste Discharge
  Permit. He will also get a permit from the Northern Sonoma County APCD. [CI/212]
- 08/31/94 (Wed) Telephone call from Fred Hayden. He reports consultant name change from CERTIFIED to Recon Environmental Corp. Address is the same. We discussed MW that is in soil contamination. He will destroy it. This must be included in the WP and he must submit a MW Permit Application. I will have Program Clerk mail him an application, Attachment 3, and AO 90-3. [CI/212]

#### Second Quarter FY 94-95 September 27, 1994 to December 19, 1994

- 09/27/94 (Tue) Discussed storage of drums with contaminated soil with John Tracy of the Dept. [CI 204]
- 10/18/94 (Tue) Rec'd 10/17 VM message from Fred Hayden of Recon Environmental. TPHd was 50 ppm. He wants to backfill and destroy MW. Call at 742-9900. [CI 212]
- 10/20/94 (Thu) Discussed workplan. They would like to implement by the last week of Oct. Discussed treatment of soil by Applied Biotics. Yes! They will definitely need a Waste discharge Permit from NCRWQCB.

  Drums of soil will also be treated with stockpiled soil. In phase II, they will overexcavate and fill with the treated soil. Discreet samples must be taken 1/20cy and be N/D. The well will be dug out. Reply: A MW Permit will be needed. In addition, prior to implementation, all items requested in my response letter must be received, i.e., SOPs, Professional Stamp & Signature, Statement of Quals, etc. [CI/212]
- 11/29/94 (Tue) Rec'd 11/28 12:11 VM message from Fred Hayden of Recon Environmental. He has questions. Phone at (415) 742-9900. [CI/212]

#### Third Quarter FY 94-95 December 20, 1995 to March 13, 1995

01/11/95 (Wed) Updated Site Activity Log. Reconciled log with database records. [CI 215]

01/11/95 (Wed)Printed Site Activity Log and reviewed for inclusion with Draft Invoice mail-out. [CI 413]

Fourth Quarter FY 94-95 March 14, 1995 to June 30, 1995

First Quarter FY 95-96 July 1, 1995 to September 25, 1995

Second Quarter FY 95-96 September 26 to December 18, 1995

Third Quarter FY 95-96 December 19, 1995 to March 25, 1996

Rev'd file to classify under NCRWQCB Interim Policy. Benzene reported at 0.5 ppb, TPHd 1100 ppb, TPHg 490 ppb. No wells anticipated within 250 feet. [CI 215]

[DB 215]

09/07/01

### First Quarter FY 95-96 July 1, 1995 to September <u>25, 1995</u>

07/06/95 (Thu) Reconciled Site Activity Log with Chronology of Activities. [CI 215]

07/25/95 (Tue) Reconciled Site Activity Log with Chronology of Activities and printed log for file. [CI 215]

# Second Quarter FY 95-96 September 26, 1995 to December 18, 1995

10/18/95 (Wed)Reviewed file for possible difficulties that may arise with the City of Cloverdale now requiring scoping sessions prior to implementation of certain site work as overexcavation, extended drilling, etc. No potential problems were found. [CI 215]

11/14/95 Reconciled chronology of activities w/ the site log. [CI 215]

Letter back from Jeff OK. Mailed letter today.

## September 23, 1996 to June 30, 2001

# Refer to Handwritten Log for this Period

### First Quarter FY 2001-02 July 1, 2001 to September 17, 2001

08/31/01	Reviewed a letter form Goobanoff Associates. A Status report on MW's to be destroyed. The locate one. One is under pavement and they recommend a geophysical to locate it. The third portable building. They could not verify that it was there. They want us to dismiss its destrict cost effectiveness. I will review with the team.	d one is under a
09/04/01	Discussed MW issue with Cliff and Dale. We need more substantiation as to why they can't well. Can they get to it? Has it been paved over? We would accept pressure grouting. Neeletter response.	•
09/05/01	Drafted letter requiring additional info and that we want all avenues explored to find the we Cliff for review.	ll. Letter to [DB 215]
09/06/01	Letter back from Cliff. Made appropriate changes. Letter to Jeff.	[DB 215]

### Second Quarter FY 2001-02 September 18, 2001 to December 10, 2001

# Third Quarter FY 2001-02 December 11, 2001 to March 18, 2002

Received a copy of a SRS for another site from Cliff yesterday indicating that there is a well at 509 Cloverdale Blvd. Reviewed the site file. We accepted a SRS from Mike Carey, Cloverdale Unified Schools Superintendent. Called Gwen to see if they have any records for 509 Cloverdale. She called back and stated that they have no records. Called the school district. Mike Carey is no longer the Superintendent.

The new one is John Wight. Began a letter.

[DB 215]

Worked on the letter. Letter to Cliff for review. Made suggested corrections. To Jeff for review.

Letter ok. Mailed the letter today.

[DB 215]

Received a vm from David Bush with Goobanoff and Associates. Returned his call. He received a copy of the letter regarding an identified well at the high school. Explained how it came about and what we need. Also discussed my Sept letter regarding mw-5. Told David that those items need to be addressed prior to this department's discussion on what to do with the well.

[DB 212]

Fourth Quarter FY 2001-02 March 19, 2002 to June 30, 2002

First Quarter FY 2002-03 July 1, 2002 to September 16, 2002

# Second Quarter FY 2002-03 September 17, 2002 to December 23, 2002

10/29/02 Upgrade RP, Bogus MTBE, Annual Review, Substance Release etc in Geotracker [PC 215]

Third Quarter FY 2002-03 December 24, 2002 to March 17, 2003

# Fourth Quarter FY 2002-03 March 18, 2003 to June 30, 2003

5/22/03 Reviewed file to update Geotracker's Risk Management Section. Updated Risk Managemet section. [DB 215]

6/24/03 Created a tank point from the site file maps and the ortho photo's. Transferred the data to decimal degree and entered it into Geotracker Survey XY. [DB 215]

# FY 2003-04 July 1, 2003 to June 30, 2004

02/11/04 Drafted prod letter for closure pending items. To DB for editing. Corrected letter, to JL for review.

[PC 215]

02/13/04 Mailed letter. [PC 215]

2/24/04

Received a call from Sharon Richardson. She is following up on the letter. They thought they received closure when we recommended the site to the Regional Board for closure. Went through the two letters and figured out that her file is missing the pending closure letter of June 2001. Faxed a copy to her at 894-1922. Sharon said that she has contacted George Goobanoff. Not sure if she is with the High School or the Unified School District.

[DB 215]

4/27/04

Received a VM from Greg with Goobanoff and Associates. He stated that they found the one lost well but still cannot access the other well. He would like to discuss. Quickly reviewed the last few letters. Left a VM for him at 799-3578. [DB 215]

4/28/04

Received a VM from Greg again. Reviewed the file. We need some documentation on a well that was referred to on the property by another consultant as part of a SRS. Pulled the county map up and a well permit was issued by PRMD on part of the property. WEL02-0354. Emailed Connie at PRMD to see what that well permit was issued for. Briefly discussed the MW under the building. We will expect something in writing as to why they can't access the well and a registered professional's opinion as to the risk to the beneficial uses of the ground water beneath the site by not destroying it. That would have to include lithology, well construction. Updated Geotracker with information such as the new Superintendent, analytical, etc

FY 2004-05 July 1, 2004 to June 30, 2005

FY 2005-06 July 1, 2005 to June 30, 2006

4/15/06

Reviewed site status. All the work was completed and case closure recommendation was concurred with prior to Geotracker regulations. They still need to destroy the wells. It looks like they found one that was paved over and one is under a portable building. The report of the well destruction will have to be uploaded to Geotracker. Will verify with Cliff and Dale that we will hold them to that prior to sending the letter out. The contact for the School District in Geotracker is currently Sharon Richardson. She is the Maintenance & Operations Supervisor. The last letter sent to this site by PC was sent to the District Superintendent Claudia Fransen. According the School District website, the Superintendent is now Claudia Rosatti. Checked the file for 129 Washington. Changed the contact information in Geotracker and advised Cliff that the contact was changed. Sharon Richardson should be cc'd. Letter to Cliff for review. Updated Geotracker.

[DB 215]

04/17/06 Rev'd and commented on DB's above letter.

[CI 215]

4/18/06 Letter back from Cliff. Modified and mailed today.

[DB 215]

4/3/09

9/25/08

2426 - F

10/5/06

3/16/07

03/19/07

3/20/07

Reviewed the reponse to the "Annual Review and Recommendation for Case Closure" received 3/9/09. They conclude that they cannot move the portable building to try to locate MW-5. They cannot do a GPR, or pressure grout. The do make an argument that leaving the well will not be harmful to the environment. Will discuss with the team. [DB300]

4/14/09

Reviewed documents prior to team meeting today. We will forgive destruction of MW-5 based on the factors presented. Emailed David Bush to advise that we will need the document uploaded, we need the name of the building (what the school calls it or the class number) and ask about area drainage. Will do a "Building Official Letter" once I get the name of the building, that if it is moved, the well will have to be [DR, JB, CI, DB300] located and properly destroyed.

4/21/09

Drafted response to CU Funds 5-year review. They want the well that is lost to be sampled, we do not agree that it needs to be sampled. Drafted a memo to the file for the 5 year review response. [DB300]

Made corrections. Letter to Christine for review and Walt's signature. Letter back signed. Reworked the 4/22/09 memo to the file. [DB300]

4/23/09	Mailed letter today. Received response letter to the items in our email from George Goobanoff & Associates. The school reports no pooling water. The classroom is Room 23. They also redid the The letter states they will upload the docs into Geotracker. Drafted a letter requiring destruction of two wells. Letter to Cliff for review.	site map.
4/24/09	Did a "Building Official Letter" regarding the remaining MW. Did a new "pending" notice.	[DB300]
4/29/09	Letter back from Cliff. Made correction to "Building Official Letter". Mailed and uploaded today	y. [DB300]
12/22/09	Researched and updated site history in Geotracker.	[DB300]
1/27/10	Emailed David Bush a schedule or reimbursements from the CU Fund that includes School Distr Suggested he check to see if the site can tap into the School District CU funds.	ricts. [DB300]
2/24/10	Began letter to advise the School District that the CU fund has monies for the next two years spechelp schools. Letter to Cliff for review.	cifically to [DB300]
2/25/10	Letter back from Cliff. Uploaded and mailed today.	[DB300]
3/10/10	Spoke to David Bush. He understands the urgency to destroy the wells and get the site closed. The working for George Goobanoff who is the liaison to the school district. David has a call in with G	
9/3/10	Emailed Claudia Rosetti. Her email came back. She is now Claudia Frandsen ( <u>frandsenc@cusd</u> Asked her for a time frame as to when she thinks the monitoring wells will be destroyed.	<u>.org</u> ). [DB300]
2/25/11	Emailed David Bush that I am about to send out another letter to the School District. Drafted a letter to Cliff for review.	etter. [DB300]
3/1/11	Discussed the letter with Cliff. Put a due date for implementation of the workplan to destroy the the letter. Emailed a copy to the president of the Cloverdale Unified School District, Steven Barr (steven.barrow@comcast.net). Mailed and uploaded the letter today.	
3/3/11	Discussed the site with David Bush. He said he has been in contact with Sharon Richardson with School District. He has provided them with a contract to do the work.	the [DB300]
6/14/11	Received a call from David. They have signed a contract with the District to do the work. Two we be destroyed. He asked for a quick turnaround on the permit as they need to get the work done by and Clearheart has an opening Friday. I told David we could do a quick turnaround and that I this have the work already concurred with. Reviewed the WP from 2009 and our acceptance letter. We forgiven the well under the building, MW5. Called David. Need a site safety plan. He will do a swith the permit. Received the short WP and Permit. Signed the permit today.	y July 1 nk we Ve have
6/16/11	Site visit today with BV. See FIR. [DI	B, BV 300]
7/6/11	Updated LUST log for pending case closures. Reviewed the MW Abandonment For Case Closures.	re Report. [BV 300]

7/7/11	Began case closure docs and file research.	[BV 300]
7/13/11	Reviewed closure checklist to discuss with BV. There is no URF. Emailed Colleen to see if the have a copy of an URF in their file since the site was transferred from them. Pulled MW list	
7/13/11	File review for closure docs, and RACC letter drafted with DB.	[BV 300]
7/18/11	Site visit to verify total clearing off of the site after MW destruction. See the field inspection date.	report this [BV 300]
7/21/11	Updated Geotracker. Uploaded RACC and CCS to Geotracker. Worked on closure checklist moved log, marked the files closed, and boxed the files. Made photocopies for mailing tomo.	•
7/22/11	Mailed documents today. Emailed consultant David Bush to advise of closure today. DB updated all closure lists. SITE CLOSED THIS DATE.	[DB, BV 300]

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

========						======	======			=======
Date of	Activity		Hours/		£mp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Subtotal	Costs	Total
06/12/90	, 207	Research	1.2	Randall, G.	1080	25.05	37.58	30.06	1.60	31.66
06/14/90 V	206	Clerical	1.0	Standridge, S.	0003	14,73	22.10	14.73	0.78	15.51
06/28/90	206	Clerical	0.3	Standridge, S.	0003	14.73	22.10	4.42	0.24	4.66
								OT/ST	Ind Cost	Total
٠			Total Hours					Total	Total	Charges
			2.5					49.21	2.62	51.83

89/90 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

	Indirect	OT/ST	OT	ST	Emp.		Hours/		Activity	Date of
Total	Costs	Sub.	Rate	Rate	Code	Employee Name	Activity	Description of Activity	Code	Work
21.54	1.09	20.45	40.89	27.26	1080	Randall, G.	0,5	RP/Int. Party Consult./Meeting	212	07/10/90
38.76	1.96	36.80	40.89	27.26	1080	Randall, G.	0.9	RP/Int. Party Consult./Meeting	212	07/10/90
8.62	0.44	8.18	40.89	27.26	1080	Randall, G.	0.3	RP/Int. Party Consult./Meeting	212	07/17/90
22.97	1.16	21.81	40.89	27.26	1080	Randall, G.	0.8	RP/Int. Party Consult./Meeting	212	07/17/90
5.74	0.29	5.45	40.89	27.26	1080	Randall, G.	0.2	RP/Int. Party Consult./Meeting	212	07/24/90
16.74	0.85	15.89	47.66	31.77	2614	Sullivan, M.	0.5	Site Visit	210	08/24/90
10.04	0.51	9.53	47.66	31.77	2614	Sullivan, M.	0.3	Report/Workplan/Data Review	215	09/26/90
16.74	0.85	15.89	47.66	31.77	2614	Sullivan, M.	0.5	Report/Workplan/Data Review	215	10/12/90
16.74	0.85	15.89	47.66	31.77	2614	Sullivan, M.	0.5	Report/Workplan/Data Review	215	10/23/90
16.74	0.85	15.89	47.66	31.77	2614	Sullivan, M.	0.5	Report/Workplan/Data Review	215	11/15/90
33.46	1.69	31.77	47.66	31.77	2614	Sullivan, M.	1.0	Report/Workplan/Data Review	215	-12/05/90
36.8	1.86	34.95	47.66	31.77	2614	Sullivan, M.	1.1	Report/Workplan/Data Review	215	12/05/90
70.27	3.55	66.72	47.66	31.77	2614	Sullivan, M.	2.1	Site Visit	210	01/02/91
23.42	1.18	22.24	47.66	31.77	2614	Sullivan, M.	0.7	Report/Workplan/Data Review	215	-02/25/91
60.23	3.04	57.19	47.66	31.77	2614	Sullivan, M.	1.8	Report/Workplan/Data Review	215	04/05/91
36.8	1.86	34.95	47.66	31.77	2614	Sullivan, M.	1.1	Report/Workplan/Data Review	215	04/08/91
33.46	1.69	31.77	47.66	31.77	2614	Sullivan, M.	1.0	Report/Workplan/Data Review	215	04/08/91
30.11	1.52	28.59	47.66	31.77	2614	Sullivan, M.	0.9	Report/Workplan/Data Review	215	04/12/91
23.42	1.18	22.24	47.66	31.77	2614	Sullivan, M.	0.7	Site Visit	210	04/23/91
30.1	1.52	28.59	47.66	31.77	2614	Sullivan, M.	0.9	Report/Workplan/Data Review	215	05/14/91
6.69	0.34	6.35	47.66	31.77	2614	Sullivan, M.	0.2	Site Visit	210	05/23/91
13.39	0.68	12.71	47.66	31.77	2614	Sullivan, M.	0.4	Site Visit	210	05/23/91
Tota	Ind Cost	OT/ST								
Charges	Total	Total					al Hours	Tot		
572.8	28.96	543.85					16.9			

90/91 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

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Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
07/25/91	215	Report/Workplan/Data Review	1.0	Sullivan, M.	2614	33.80	50.70	33.80	3.38	37,18
10/31/91	215	Report/Workplan/Data Review	0.7	Sullivan, M.	2614	33.80	50.70	23.66	2.37	26.03
11/01/91	215	Report/Workplan/Data Review	2.0	Sullivan, M.	2614	33.80	50.70	67.60	6.76	74.36
11/01/91	215	Report/Workplan/Data Review	0.6	Sullivan, M.	2614	33.80	50.70	20.28	2.03	22.31
11/12/91	212	RP/Int. Party Consult./Meeting		Sullivan, M.	2614	33.80	50.70	16.90	1.69	18.59
01/13/92	212	RP/Int. Party Consult./Meeting		Sullivan, M.	2614	33.80	50.70	16.90	1.69	18.59
01/16/92	212	RP/Int. Party Consult./Meeting		Sullivan, M.	2614	33.80	50.70	20.28	2.03	22.31
~ 01/27/92	212	RP/Int. Party Consult./Meeting		Sullivan, M.	2614	33.80	50.70	13.52	1.35	14.87
02/18/92	212	RP/Int. Party Consult./Meeting		Sullivan, M.	2614	33.80	50.70	13.52	1.35	14.87
<b>04/15/92</b>	212	RP/Int. Party Consult./Meeting		Sullivan, M.	2614	33.80	50.70	3.38	0.34	3.72
05/05/92	212	RP/Int. Party Consult./Meeting		Sullivan, M.	2614	33.80	50.70	16.90	1.69	18.59
05/26/92	215	Report/Workplan/Data Review	1.0	Sullivan, M.	2614	33.80	50.70	33.80	3.38	37.18
								OT/ST	Ind Cost	Total
		To	tal Hours					Total	Total	Charges
			8.3					280.54	28.06	308.60

91/92 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
▶08/04/92	212	RP/Int. Party Consult./Meeting	0,3	Sullivan, M.	2614	35.68	53.52	10.70	1.07	11.77
09/23/92	212	RP/Int. Party Consult./Meeting	0.4	Sullivan, M.	2614	35.68	53.52	14.27	1.43	15.70
09/25/92	212	RP/Int. Party Consult./Meeting	0.2	Sullivan, M.	2614	35.68	53.52	7.14	0.71	7.85
> 09/30/92	215	Report/Workplan/Data Review	0.4	Sullivan, M.	2614	35.68	53.52	14.27	1.43	15.70
>09/30/92	212	RP/Int. Party Consult./Meeting	0.5	Sullivan, M.	2614	35.68	53.52	17.84	1.78	19.62
10/01/92	210	Site Visit	0.7	Sullivan, M.	2614	35.68	53.52	24.98	2.50	27.48
<b>\10/01/92</b>	210	Site Visit	1.4	Sullivan, M.	2614	35.68	53.52	49.95	5.00	54.95
10/20/92	215	Report/Workplan/Data Review	0.3	Sullivan, M.	2614	35.68	53.52	10.70	1.07	11.77
10/21/92	212	RP/Int. Party Consult./Meeting	0.3	Sullivan, M.	2614	35.68	53.52	10.70	1.07	11.77
11/02/92	212	RP/Int. Party Consult./Meeting	0.8	Sullivan, M.	2614	35.68	53.52	28.54	2.85	31.39
<b>~11/02/92</b>	212	RP/Int. Party Consult./Meeting	0.6	Sullivan, M.	2614	35.68	53.52	21.41	2.14	23.55
12/22/92	212	RP/Int. Party Consult./Meeting	0.5	Sullivan, M.	2614	35.68	53.52	17.84	1.78	19.62
								OT/ST	Ind Cost	Total
		То	tal Hours					Total	Total	Charges
			6.4					228.34	22.83	251.17

92/93 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

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Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
01/21/94	215	Report/Workplan/Data Review	0.2	Allen, M.	1080	35.79	53.69	7.16	0.99	8,15
02/22/94	215	Report/Workplan/Data Review	0.3	Allen, M.	1080	35.79	53.69	10.74	1.48	12.22
02/23/94	204	Reg. Bd./Other Agencies Mtg.	0.2	Allen, M.	1080	35.79	53.69	7.16	0.99	8.15
04/21/94	212	RP/Int. Party Consult./Meeting	0.2	Allen, M.	1080	35.79	53.69	7.16	0.99	8.15
05/02/94	210	Site Visit	0.5	Ives, C.	2612	33.40	50.10	16.70	2.30	19.00
05/02/94	210	Site Visit	0.8	Ives, C.	2612	33.40	50.10	26.72	3.68	30.40
05/03/94	215	Report/Workplan/Data Review	1.2	Ives, C.	2612	33.40	50.10	40.08	5.52	45.60
05/12/94	215	Report/Workplan/Data Review	8.0	Allen, M.	1080	35.79	53.69	28.63	3.94	32.57
05/12/94	204	Reg. Bd./Other Agencies Mtg.	0.1	Allen, M.	1080	35.79	53.69	3.58	0.49	4.07
05/13/94	204	Reg. Bd./Other Agencies Mtg.	0.3	Allen, M.	1080	35.79	53.69	10.74	1.48	12.22
05/31/94	212	RP/Int. Party Consult./Meeting	0.2	Allen, M.	1080	35.79	53.69	7.16	0.99	8.15
05/31/94	215	Report/Workplan/Data Review	0.2	Ives, C.	2612	33.40	50.10	6.68	0.92	7.60
06/28/94	204	Reg. Bd./Other Agencies Mtg.	0.3	Allen, M.	1080	35.79	53.69	10.74	1.48	12.22
06/28/94	204	Reg. Bd./Other Agencies Mtg.	0.1	Ives, C.	2612	33.40	50.10	3.34	0.46	3.80
								<b>07</b> /0 <b>7</b>		
		•	<b>.</b>					OT/ST	Ind Cost	Total
		To:	tal Hours					Total	Total	Charges
			5.4					186.59	25.71	212.30
=======		<b>                                      </b>				======	======	=======		

93/94 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

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Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
07/12/94	210	Site Visit	0.6	Ives, C.	2612	34.84	52.26	20.90	1.90	22.80
07/12/94	210	Site Visit	0.2	Ives, C.	2612	34.84	52.26	6.97	0.63	7.60
07/18/94	215	Report/Workplan/Data Review	0.2	Ives, C.	2612	34.84	52.26	6.97	0.63	7.60
07/18/94	215	Report/Workplan/Data Review	1.1	Ives, C.	2612	34.84	52.26	38.32	3.48	41.80
<b>\</b> 07/19/94	215	Report/Workplan/Data Review	0.3	Ives, C.	2612	34.84	52.26	10.45	0.95	11.40
07/27/94	215	Report/Workplan/Data Review	1.5	Ives, C.	2612	34.84	52.26	52.26	4.75	57.01
07/28/94	204	Reg. Bd./Other Agencies Mtg.	0.2	Allen, M.	1080	36.68	55.02	7.34	0.67	8.01
<b>√</b> 07/28/94	204	Reg. Bd./Other Agencies Mtg.	0.3	Ives, C.	2612	34.84	52.26	10.45	0.95	11.40
08/02/94	215	Report/Workplan/Data Review	0.6	Ives, C.	2612	34.84	52.26	20.90	1.90	22.80
<b>&gt;</b> 08/16/94	212	RP/Int. Party Consult./Meeting	0.2	Ives, C.	2612	34.84	52.26	6.97	0.63	7.60
08/16/94	215	Report/Workplan/Data Review	0.4	Ives, C.	2612	34.84	52.26	13.94	1.27	15.21
~08/18/94	204	Reg. Bd./Other Agencies Mtg.	0.3	Ives, C.	2612	34.84	52.26	10.45	0.95	11.40
08/18/94	204	Reg. Bd./Other Agencies Mtg.	0.3	Allen, M.	1080	36.68	55.02	11.00	1.00	12.00
08/29/94	212	RP/Int. Party Consult./Meeting	0.1	Ives, C.	2612	34.84	52.26	3.48	0.32	3.80
08/30/94	212	RP/Int. Party Consult./Meeting	0.1	Ives, C.	2612	34.84	52.26	3.48	0.32	3.80
08/31/94	212	RP/Int. Party Consult./Meeting	0.4	Ives, C.	2612	34.84	52.26	13.94	1.27	15.21
09/27/94	204	Reg. Bd./Other Agencies Mtg.	0.1	Ives, C.	2612	34.84	52.26	3.48	0.32	3.80
10/18/94	212	RP/Int. Party Consult./Meeting	0.1	Ives, C.	2612	34.84	52.26	3.48	0.32	3.80
10/20/94	212	RP/Int. Party Consult./Meeting	0.2	Ives, C.	2612	34.84	52.26	6.97	0.63	7.60
> 11/29/94	212	RP/Int. Party Consult./Meeting	0.1	Ives, C.	2612	34.84	52.26	3.48	0.32	3.80
01/11/95	215	Report/Workplan/Data Review	0.4	Ives, C.	2612	34.84	52.26	13.94	1.27	15.21
				·						
								OT/ST	Ind Cost	Total
		To	tal Hours					Total	Total	Charges
			7.7					269.17	24.48	293.65

94/95 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
07/06/95	215	Report/Workplan/Data Review	0.1	Ives, C.	2612	38.32	57.48	3.83	0.35	4.18
07/25/95	215	Report/Workplan/Data Review	0.2	Ives, C.	2612	38.32	57.48	7.66	0.70	8.36
40/18/95	215	Report/Workplan/Data Review	0.2	Ives, C.	2612	38.32	57.48	7.66	0.70	8.36
11/14/95	215	Report/Workplan/Data Review	0.1	Ives, C.	2612	38.32	57.48	3.83	0.35	4.18
12/21/95	215	Report/Workplan/Data Review	0.3	Ives, C.	2612	38.32	57.48	11.50	1.05	12.55
								OT/ST	Ind Cost	Total
		т	otal Hours					Total	Total	Charges
			0.9					34.48	3.15	37.63

95/96 site summary

### Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
<b>\</b> 01/22/97	215	Report/Workplan/Data Review	0.9	Ives, C.	2612	39.17	58.76	35.25	3.45	38.70
06/18/97	215	Report/Workplan/Data Review	0.8	Ives, C.	2612	39.17	58.76	31.34	3.07	34.41
06/20/97	215	Report/Workplan/Data Review	1.7	Ives, C.	2612	39.17	58.76	66.59	6.51	73.10
								OT/ST	Ind Cost	Total
		ī	otal Hours					Total	Total	Charges
			3.4					133.18	13.03	146.21

96/97 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

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Date of	Activity		Hours/		Етр.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
\ _{08/18/97}	215	Report/Workplan/Data Review	5.9	Ives, C.	2612	40.36	60.54	238.12	22.15	260.27
<b>№</b> 08/19/97	215	Report/Workplan/Data Review	0.4	Ives, C.	2612		60.54	16.14	1.50	17.64
09/23/97	215	Report/Workplan/Data Review	0.4	Ives, C.	2612	40.36	60.54	16.14	1.50	17.64
09/24/97	212	RP/Int. Party Consult./Meeting	0.4	Ives, C.	2612	40.36	60.54	16.14	1.50	17.64
11/20/97	212	RP/Int. Party Consult./Meeting	0.5	Ives, C.	2612	40.36	60.54	20.18	1.88	22.06
03/13/98	215	Report/Workplan/Data Review	0.3	Ives, C.	2612	40.36	60.54	12.11	1.13	13.24
								OT/ST	Ind Cost	Total
		То	tal Hours					Total	Total	Charges
			7.9					318.83	29.66	348.49
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97/98 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
11/03/98	215	Report/Workplan/Data Review	0.4	Ives, C.	2612	41.65	62.48	16.66	1.60	18.26
04/29/99	215	Report/Workplan/Data Review	1.4	Ives, C.	2612	41.65	62.48	58.31	5.60	63.91
•										
								OT/ST	Ind Cost	Total
		1	otal Hours					Total	Total	Charges
			1.8					74.97	7.20	82.17

98/99 site summary

### Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Tota
12/14/99	207	Issuance of Closure Document	4.0	Ives, C.	2614	43.22	64.83	216.10	21.18	237.28
12/15/99	207	Issuance of Closure Document	5.4	Ives, C.	2614	43.22	64.83	255.00	24.99	279.99
01/06/00	207	Issuance of Closure Document	4.3	Ives, C.	2614	43.22	64.83	185.85	18.21	204.0
								0T/ST	Ind Cost	Total
		Te	otal Hours					Total	Total	Charges
			13.7					656.95	64.38	721.3

99/00 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
▶ 12/08/00	215	Report/Workplan/Data Review	1.7	Bering, D.	2611	41.21	61.82	70.06	6.17	76.2
12/12/00	215	Report/Workplan/Data Review	2.1	Bering, D.	2611	41.21	61.82	86.54	7.62	94.16
12/15/00	215	Report/Workplan/Data Review	2.1	Bering, D.	2611	41.21	61.82	86.54	7.62	94.1
12/15/00	204	Reg. Bd./Other Agencies Mtg.	1.0	Ives, C.	2612	45.61	68.42	45.61	4.01	49.6
12/18/00	215	Report/Workplan/Data Review	0.5	Bering, D.	2611	41.21	61.82	20.61	1.81	22.4
01/10/01	212	RP/Int. Party Consult./Meeting	0.2	Bering, D.	2611	41.21	61.82	8.24	0.73	8.9
03/06/01	207	Issuance of Closure Document	3.5	Bering, D.	2611	41.21	61.82	144.24	12.69	156.93
03/06/01	204	Reg. Bd./Other Agencies Mtg.	0.5	Ives, C.	2612	45.61	68.42	22.81	2.01	24.8
03/08/01	207	Issuance of Closure Document	1.9	Bering, D.	2611	41.21	61.82	78.30	6.89	85.1°
03/08/01	204	Reg. Bd./Other Agencies Mtg.	0.6	Ives, C.	2612	45.61	68.42	27.37	2.41	29.7
03/09/01	207	Issuance of Closure Document	1.1	Bering, D.	2611	41.21	61.82	45.33	3.99	49.3
04/03/01	212	RP/Int. Party Consult./Meeting	0.5	Bering, D.	2611	41.21	61.82	20.61	1.81	22.4
~04/09/01	207	Issuance of Closure Document	1.1	Bering, D.	2611	41.21	61.82	45.33	3.99	49.3
04/09/01	204	Reg. Bd./Other Agencies Mtg.	0.6	Ives, C.	2612	45.61	68.42	27.37	2.41	29.7
04/10/01	207	Issuance of Closure Document	0.9	Bering, D.	2611	41.21	61.82	37.09	3.26	40.3
04/10/01	204	Reg. Bd./Other Agencies Mtg.	0.3	Ives, C.	2612	45.61	68.42	13.68	1.20	14.8
04/11/01	207	Issuance of Closure Document	1.3	Bering, D.	2611	41.21	61.82	53.57	4.71	58.2
06/06/01	212	RP/Int. Party Consult./Meeting	0.3	Bering, D.	2611	41.21	61.82	12.36	1.09	13.4
06/19/01	207	Issuance of Closure Document	0.9	Bering, D.	2611	41.21	61.82	37.09	3.26	40.3
06/20/01	215	Report/Workplan/Data Review	0.3	Bering, D.	2611	41.21	61.82	12.36	1.09	13.4
								OT/ST	Ind Cost	Tota
		То	tal Hours					Total	Total	Charge:
			21.4					895.11	78.77	973.8

00-01 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

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Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
,07/17/01	204	Reg. Bd./Other Agencies Mtg.	0.1	Radford, D.		56.86	85.29	5.69	0.43	6.12
08/31/01	215	Report/Workplan/Data Review	0.5	Bering, D.	2611	45.72	68.58	22.86	1.74	24.60
/09/04/01	204	Reg. Bd./Other Agencies Mtg.	0.3	Bering, D.	2611	45.72	68.58	13.72	1.04	14.76
<b>/</b> 09/04/01	204	Reg. Bd./Other Agencies Mtg.	0.2	lves, C.	2612	48.57	72.86	9.71	0.74	10.45
<b>√</b> 09/04/01	204	Reg. Bd./Other Agencies Mtg.	0.2	Radford, D.		56.86	85.29	11.37	0.86	12,23
<b>/</b> 09/05/01	215	Report/Workplan/Data Review	1.8	Bering, D.	2611	45.72	68.58	82.30	6.25	88.55
<b>/</b> 09/06/01	215	Report/Workplan/Data Review	0.4	Bering, D.	2611	45.72	68.58	18.29	1.39	19,68
<b>/</b> 09/07/01	215	Report/Workplan/Data Review	0.3	Bering, D.	2611	45.72	68.58	13.72	1.04	14.76
/12/13/01	215	Report/Workplan/Data Review	0.6	Bering, D.	2611	45.72	68.58	27.43	2.08	29.51
12/14/01	215	Report/Workplan/Data Review	1.3	Bering, D.	2611	45.72	68.58	59.44	4.52	63.96
01/28/02	212	RP/Int. Party Consult./Meeting	0.4	Bering, D.	2611	45.72	68.58	18.29	1.39	19.68
								01/81	Ind Cost	Total
		То	tal Hours					Total	Total	Charges
			6.1					282.82	21.48	304.30

01-02 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

Date of Work	Activity Code	Description of Activity	Hours/ Activity	Employee Name	Emp. Code	ST Rate	OT Rate	OT/ST Sub.	Indirect Costs	Total
<b>√</b> 10/29/02	215	Report/Workplan/Data Review	0.7	Carr, P.	2611	40.87	61.31	28.61	3.23	31.84
05/22/03	215	Report/Workplan/Data Review	0.3	Bering, D.	2611	50.45	75.68	15.14	1.71	16.85
06/24/03	215	Report/Workplan/Data Review	0.4	Bering, D.	2611	50.45	75.68	20.18	2.28	22.46
								OT/ST	Ind Cost	Total
		ī	otal Hours					Total	Total	Charges
			1.4					63.93	7.22	71.15

02/03 site summary

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
02/11/04	215	Report/Workplan/Data Review	3.0	Carr, P.	2611	45.51	68.27	136.53	14.61	151.14
/02/13/04	215	Report/Workplan/Data Review	0.5	Carr, P.	2611	45.51	68.27	22.76	2.44	25.20
02/24/04	215	Report/Workplan/Data Review	0.6	Bering, D.	2611	54.69	82.04	32.81	3.51	36.32
04/27/04	215	Report/Workplan/Data Review	0.7	Bering, D.	2611	54.69	82.04	38.28	4.10	42.38
04/28/04	215	Report/Workplan/Data Review	1.7	Bering, D.	2611	54.69	82.04	92.97	9.95	102.92
								OT/ST	Ind Cost	Total
		ī	otal Hours					Total	Total	Charges
			6.5					323.35	34.61	357.96

03/04 site summary

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Total Hours

OT/ST Ind Cost Total

Total Total Charges

04/05 site summary

### Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
04/15/06	215	Report/Workplan/Data Review	2.6	Bering, D.	2614	64.32	96.48	250.85	31.61	282.46
04/17/06	215	Report/Workplan/Data Review	0.4	ives, C.	2614	68.83	103.25	27.53	3.47	31.00
04/18/06	215	Report/Workplan/Data Review	1.2	Bering, D.	2614	64.32	96.48	77.18	9.72	86.90
								OT/ST	Ind Cost	Total
		T	otal Hours					Total	Total	Charges
			4.2					355.56	44.80	400.36

05/06 site summary

### Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

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Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Sub.	Costs	Total
a 0/05/06	200	Resp. Party Iden./Notification	0.5	Bering, D.	2614	64.32	96.48	32.16	4.73	36.89
<b>/</b> 03/16/07	200	Resp. Party Iden./Notification	1.2	Bering, D.	2614	64.32	96.48	77.18	11.35	88.53
<b>/</b> 03/19/07	200	Resp. Party Iden./Notification	0.3	Ives, C.	2614	68.83	103.25	20.65	3.04	23.69
<b>/</b> 03/20/07	200	Resp. Party Iden./Notification	0.7	Bering, D.	2614	64.32	96.48	45.02	6.62	51.64
								OT/ST	Ind Cost	Total
		To	tal Hours					Total	Total	Charges
			2.7					175.01	25.74	200.75

current yr site sum

Activity Date	Program/Ele	Program/Ele	Record ID	Activity	Activity Inspection	Faci	· Faci Malling Address 、、 、	Employee	
9/25/2008	1530		PR001384 6	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
10/24/2008	1530	LOP - Site-	PR001384 6	#####	(auou)	FA0	509 N Cloverdale Blvd	Darcy Bering	
3/3/2009	1530		PR001384 6	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
4/3/2009	1530		PR001384	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
4/14/2009	1530	LOP - Site-	PR001384	#####	(none)	FAO	509 N Cloverdale Blvd	Cliff Ives	
4/14/2009	1530		PR001384	#####	(none)	FAO	509 N Cloverdale Blvd	Dale Radford	
4/14/2009	1530	LOP - Site-	PR001384	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
4/21/2009	1530	ب يؤ.	PR001384 6	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
4/22/2009	1530		PR001384 6	#####	(none)	FA0 DO3	509 N Cloverdale Bivd	Christine Sosko	
4/22/2009	1530		PR001384	#####	(none)	FA0	509 N Cloverdale Bivd	Darcy Bering	
4/22/2009	1530		PR001384 6	#####	(попе)	FAO	509 N Cloverdale Blvd	Walt Kruse	
4/23/2009	1530		PR001384	#####	(none)	FAO	509 N Cloverdale Blvd	Darcy Bering	
4/24/2009	1530		PR001384	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	the second secon
4/28/2009	1530	l.	PR001384	#####	(none)	FA0	509 N Cloverdale Blvd	Cliff Ives	
4/29/2009	1530 =-	LOP. Site-	PR001384 6	#####	(auou)	FA0	509 N Cloverdale Blvd	Darcy Bering	
12/22/2009	1530		PR001384 6	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
1/27/2010	1530	LOP - Site-	PR001384 6	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
2/24/2010	1530		PR001384 6	#####	(auou)	FA0	509 N Cloverdale Blvd	Darcy Bering	
2/25/2010	1530	LOP - Site- Specific -	PR001384 6	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
3/10/2010	1530		PR001384 6	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering.	
9/3/2010	1530		PR001384 6	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
2/25/2011	1530	LOP Site-	PR001384	#####	(auou)	FA0	509 N Cloverdale Blvd	Darcy Bering	
3/1/2011	1530	LOP - Site- Specific -	PR001384 6	#####	(none)	FA0	509 N Cloverdale Blvd	Darcy Bering	
3/3/2011	1530	LOP = Site-	PR001384 6	#####	(auou)	FA0=	509 N Cloverdale Blvd	Darcy Bering	
4/15/2011	3318	10d	PR000121	(auou)   ####		FA0	509 N Cloverdale Blvd	Carol Swain	
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Rita Scardaci, PHN, MPH - Director Ruth Lincoln, PHN, MA - Assistant Director Benita McLarin, MS, MHA - Assistant Director

## Environmental Health Division

Walter L. Kruse - Director

April 23, 2009

Mr. Abdul Karim Yusufzai Underground Storage Tank Cleanup Fund State Water Resources Control Board P.O. Box 944212 Sacramento, CA 94244-2120

Re: Preli

Preliminary USTCF 5-Year Review Summary
Leaking Underground Storage Tank Site
509 Cloverdale Boulevard North, Cloverdale
SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108, CU Fund #1081

Dear Mr. Yusufzai:

On March 20, 2009, this Department received the referenced summary dated March 18, 2009. Thank you for the opportunity to comment on the Cleanup Fund's assessement of the site. A cursory review of the document has been completed. However, this Division does not concur with Cleanup Fund staff's recommendations for the reasons noted in the attached memo.

The detailed information included in the summary was not reviewed for accuracy or completeness. Please contact Darcy Bering at (707) 565-6571 if you have any questions or wish to discuss the site further.

Sincerely,

Walter L. Kruse

Director of Environmental Health

WK/db

Enclosure

c: LOP file

# Sonoma County Department of Health Services Environmental Health Division

#### **MEMO**

Date:

April 23, 2009

To:

509 Cloverdale Boulevard North LOP File (#00002426)

From:

Darcy Bering 97

Subject:

Response to Cleanup Fund Preliminary 5-Year Review dated March 18, 2009

This Department has reviewed the referenced 5-Year review and does not concur with the recommendation to obtain a groundwater sample from monitoring well MW-5 at the site for the following reasons:

The site has been granted closure concurrence from the North Coast Regional Water Quality Control Board (NCRWQCB). It has been recently determined that it is not feasible to sample or destroy MW-5. The remaining two monitoring wells will be properly destroyed and the site will be granted final closure.



## **State Water Resources Control Board**

#### Division of Financial Assistance

1001 I Street • Sacramento, California 95814 P.O. Box 944212 • Sacramento, California • 94244-2120 (916) 341-5684 FAX (916) 341-5806 • www.waterboards.ca.gov/cwphome/ustcf



MAR 18 2009

DEPT. OF HEALTH SERVICES

Walter L. Kruse Leaking Underground Storage Tank Local Oversight Program County of Sonoma, Department of Health Services 475 Aviation Blvd., Suite 220, Santa Rosa, CA 95403

MAR 2 0 2009 ENVIRONMENTAL HEALTH DIVISION

PRELIMINARY 5-YEAR REVIEW SUMMARY REPORT FOR CLAIM NUMBER 1081: CLOVERDALE HIGH SCHOOL, 509 CLOVERDALE BLVD N. CLOVERDALE, CA 95425

The UST Cleanup Fund (Fund) has completed our review of the Sonoma County case number 00002426. The Preliminary 5-Year Review Summary Report for this case is enclosed for your information and comment. Please note that the Fund's recommendations are based on review of information contained in the Fund's case files, data currently in the Geotracker database and any other sources of information that were readily available to Fund staff at the time the review was conducted. Consequently, they may not reflect historical information that has not been uploaded to the Geotracker database or available in the Fund's case files and any data that has been recently submitted to your office. During our review we solicited input from your Regional Board caseworker to obtain the current status of corrective action at this site. as well as information on any outstanding issues. If additional information was provided by the caseworker, it was considered by Fund staff and incorporated into our recommendations, if applicable.

The Fund requests that the Regional Board staff notify the Fund within 45 days from the date of this letter as to whether you agree or disagree with our recommendations for this case. If you agree with our recommendation, we request that you provide the Fund with an estimated timeframe to either implement the recommendations for additional corrective action or for closing this case. If you do not agree with our recommendations, we request that you provide the Fund with a summary of the reasons for disagreeing and/or impediments to implementing the recommendations for additional corrective action or closing this case. Responses to the Fund may be provided by e-mail, letter or a copy of correspondence to the RP, if the correspondence addresses all the information requested by the Fund. Please direct your response to:

Abdul Karim Yusufzai
Underground Storage Tank Cleanup Fund
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120
Ayusufzai@waterboards.ca.gov

Fund staff will be sending copies of all completed 5-Year Review Summary Reports to claimants 45 days from the date of this letter unless the Regional Board notifies the Fund that they wish to discuss this case prior to transmittal to the claimant. If you or your staff has any questions or concerns on specific reports that you would like to discuss with the Fund prior to transmittal of the report to the claimant, please contact Abdul Karim Yusufzai at (916) 341-5742 or by email (Ayusufzai@waterboards.ca.gov) within this period.

Sincerely,

**Robert Trommer** 

Senior Engineering Geologist Chief, Technical Review Unit

Underground Storage Tank Cleanup Fund

CC: DARCY BERING

Leaking Underground Storage Tank

**Local Oversight Program** 

County of Sonoma, Department of Health Services

475 Aviation Blvd., Suite 220,

Santa Rosa, CA 95403



## State Water Resources Control Board

#### Division of Financial Assistance

1001 1 Street • Sacramento, California 95814
P.O. Box 944212 • Sacramento, California • 94244-2120
(916) 341-5660 FAX (916) 341-5806 • www.waterboards.ca.gov/cwphome/ustcf



## PRELIMINARY USTCF 5-YEAR REVIEW SUMMARY

USTCF Claim No.: 1081

Claimant Name: CLOVERDALE UNIFIED SCHOOL DISTRICT Site Name: CLOVERDALE HIGH

**SCHOOL** 

Site Address: 509 CLOVERDALE BLVD

N, CLOVERDALE, CA 95425

City: CLOVERDALE

Region/Caseworker: Sonoma County/

DARCY BERING

Lead Agency Case: 00002426 No: Global ID: T0609700078 Date LOC Issued: 3/16/94

USTCF Expenditures to Date: \$37,993

Priority Class: B

#### I. CASE INFORMATION:

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active?	Date
1	N/A	N/A	N/A	N/A

#### II. RELEASE INFORMATION:

Source of Release: USTsDate of Release: 7/17/86

Affected Media: Soil and Groundwater

#### III. SITE CHARACTERIZATION INFORMATION:

#### A. Site Information:

GW BASIN: Unknown

BENEFICIAL USES: Municipal, Irrigation, Industrial

DISTANCE TO NEAREST SUPPLY WELL: N/A

DISTANCE BETWEEN KNOWN SHALLOW GW CONTAMINATION AND

AQUIFER: Impacted

MINIMUM GROUNDWATER DEPTH: N/A feet bgs
 MAXIMUM GROUNDWATER DEPTH: N/A feet bgs

FLOW DIRECTION: N/A

SOIL TYPES: N/A

#### **B.** Monitoring Well Information:

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent DTW (date)
MW1	N/A	N/A	N/A
MW2	N/A	N/A	N/A
MW3	N/A	N/A	N/A
MW4	N/A	N/A	N/A
MW5	N/A	N/A	N/A

#### IV. MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS:

Contaminant	Soil	(mg/kg)	Water (ug/L)				
	Maximum (date)	Latest (date)	Maximum (date)	Latest (date)			
TPH-g	NA ·	NA NA	N/A	N/A			
TPH-d	NA	NA	N/A	N/A			
Benzene	NA	NA	N/A	N/A			
Toluene	NA	NA	. N/A	N/A			
Ethylbenzene	NA	NA	N/A	N/A			
Xylenes	NA	NA	N/A	N/A			
MTBE	NA	NA	N/A	N/A			
TBA	NA	NA	N/A	N/A			
1,2-DCA	NA	NA	N/A	N/A			
Lead	NA	NA	· N/A	N/A			
PCE	NA	NA .	N/A	N/A			
TCE	NA	NA	N/A	N/A			

MCL - Maximum Contaminant Levels

NL - Notification Level

FREE PRODUCT: None identified

#### VI. SOIL AND GROUNDWATER REMEDIATION:

• Soil Excavation: None Identified.

In-Situ Soil Remediation: None Identified.

Soil Remediation: None Identified.

Groundwater Remediation: None Identified.

Groundwater Monitoring Summary: None Identified.

VII. SENSITIVE RECEPTOR SURVEY: None Identified.

#### VIII. COMMENTS AND JUSTIFICATION FOR RECOMMENDED ACTION:

Site Description: None Identified.

## CLOVERDALE UNIFIED SCHOOL DISTRICT -3-Claim No. 1081

March 12, 2009

**Site History:** Pursuant to an annual review letter dated September 25, 2008, the Department of Health Services of Sonoma County has issued multiple directives to the Cloverdale School District, which is a RP in this case, on various dates since 2001. However, the School District has not responded to any of the directives, and site is still out of compliance.

Remediation Summary: None Identified.

Contaminant Exposure Pathway Evaluation: Unknown

**Recommendation:** The Department of Health Services of the Sonoma County received concurrence for closure of the site by the North Coast Regional Board in 2001, but due to pending items the site has not been closed yet. Since 2001, on several occasions, the County has requested that Cloverdale Unified School District abandoned the site monitoring wells.

However, the District has not responded to any of the County directives, and the groundwater-monitoring well MW5 has not been destroyed properly. The School District should understand that if the well is not abandoned properly, it might create a conduit for migration of contaminants to the groundwater zone.

Therefore, the Fund recommends that the County should use enforcement if necessary in order to bring the District into compliance with State and County Regulations. Please note that prior to the abandonment of the well, a groundwater sample should be collected from MW5. Upon review of the lab result, the County should decide whether to abandon the well and close the site.

The Fund will review this site next year to track progress.

Abdul Karim Yusufzai Engineering Geologist Technical Review Unit

(916) 341-5742

Robert Trommer, CHG

Senior Engineering Geologist

Chief, Technical Review Unit

(916) 341-5684

# Linda S. Adams

## Linda S. Adams Secretary for Environmental Protection

## **State Water Resources Control Board**

#### Division of Financial Assistance

1001 I Street • Sacramento, California 95814
P.O. Box 944212 • Sacramento, California • 94244-2120
(916) 341-5684 FAX (916) 341-5806 • www.waterboards.ca.gov/cwphome/ustcf



MAR: 18 2009

Walter L. Kruse Leaking Underground Storage Tank Local Oversight Program County of Sonoma, Department of Health Services 475 Aviation Blvd., Suite 220, Santa Rosa, CA 95403

PRELIMINARY 5-YEAR REVIEW SUMMARY REPORT FOR CLAIM NUMBER 1081: CLOVERDALE HIGH SCHOOL, 509 CLOVERDALE BLVD N, CLOVERDALE, CA 95425

The UST Cleanup Fund (Fund) has completed our review of the Sonoma County case number 00002426. The Preliminary 5-Year Review Summary Report for this case is enclosed for your information and comment. Please note that the Fund's recommendations are based on review of information contained in the Fund's case files, data currently in the Geotracker database and any other sources of information that were readily available to Fund staff at the time the review was conducted. Consequently, they may not reflect historical information that has not been uploaded to the Geotracker database or available in the Fund's case files and any data that has been recently submitted to your office. During our review we solicited input from your Regional Board caseworker to obtain the current status of corrective action at this site as well as information on any outstanding issues. If additional information was provided by the caseworker, it was considered by Fund staff and incorporated into our recommendations, if applicable.

The Fund requests that the Regional Board staff notify the Fund within 45 days from the date of this letter as to whether you agree or disagree with our recommendations for this case. If you agree with our recommendation, we request that you provide the Fund with an estimated timeframe to either implement the recommendations for additional corrective action or for closing this case. If you do not agree with our recommendations, we request that you provide the Fund with a summary of the reasons for disagreeing and/or impediments to implementing the recommendations for additional corrective action or closing this case. Responses to the Fund may be provided by e-mail, letter or a copy of correspondence to the RP, if the correspondence addresses all the information requested by the Fund. Please direct your response to:

DEPT. OF HEALTH SERVICES

MAR 2 0 2009

Abdul Karim Yusufzai
Underground Storage Tank Cleanup Fund
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120
Ayusufzai@waterboards.ca.gov

ENVIRONMENTAL HEALTH DIVISION

Fund staff will be sending copies of all completed 5-Year Review Summary Reports to claimants 45 days from the date of this letter unless the Regional Board notifies the Fund that they wish to discuss this case prior to transmittal to the claimant. If you or your staff has any questions or concerns on specific reports that you would like to discuss with the Fund prior to transmittal of the report to the claimant, please contact Abdul Karim Yusufzai at (916) 341-5742 or by email (Ayusufzai@waterboards.ca.gov) within this period.

Sincerely,

Robert Trommer

Senior Engineering Geologist Chief, Technical Review Unit

Underground Storage Tank Cleanup Fund

CC: DARCY BERING

Leaking Underground Storage Tank

Local Oversight Program

County of Sonoma, Department of Health Services

475 Aviation Blvd., Suite 220,

Santa Rosa, CA 95403



## **State Water Resources Control Board**

#### Division of Financial Assistance

1001 I Street · Sacramento, California 95814 P.O. Box 944212 • Sacramento, California • 94244-2120 (916) 341-5660 FAX (916) 341-5806 • www.waterboards.ca.gov/cwphome/ustcf



#### **PRELIMINARY USTCF 5-YEAR REVIEW SUMMARY**

USTCF Claim No.: 1081

Claimant Name: CLOVERDALE UNIFIED SCHOOL DISTRICT Site Name: CLOVERDALE HIGH

**SCHOOL** 

Site Address: 509 CLOVERDALE BLVD

N. CLOVERDALE, CA 95425

City: CLOVERDALE

Region/Caseworker: Sonoma County/

DARCY BERING

Lead Agency Case: 00002426 No: Global ID: T0609700078 Date LOC Issued: 3/16/94

USTCF Expenditures to Date: \$37,993

Priority Class: B

#### I. CASE INFORMATION:

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active?	Date
1 .	N/A	N/A	N/A	N/A

#### II. RELEASE INFORMATION:

Source of Release: USTs Date of Release: 7/17/86

Affected Media: Soil and Groundwater

#### **III. SITE CHARACTERIZATION INFORMATION:**

#### A. Site Information:

GW BASIN: Unknown

BENEFICIAL USES: Municipal, Irrigation, Industrial

DISTANCE TO NEAREST SUPPLY WELL: N/A

DISTANCE BETWEEN KNOWN SHALLOW GW CONTAMINATION AND

AQUIFER: Impacted

 MINIMUM GROUNDWATER DEPTH: feet bgs MAXIMUM GROUNDWATER DEPTH: N/A feet bas

FLOW DIRECTION: N/A

SOIL TYPES: N/A



#### B. Monitoring Well Information:

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent DTW (date)
MW1	N/A	N/A	N/A
MW2	N/A	N/A	N/A
MW3	N/A	N/A	N/A
MW4	N/A	N/A	N/A
MW5	N/A	N/A	N/A

#### IV. MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS:

Contaminant	'Soil	(mg/kg)	Water (ug/L)				
	Maximum (date)	Latest (date)	Maximum (date)	Latest (date)			
TPH-g	NA .	NA	N/A	N/A			
TPH-d	NA	NA	N/A	N/A			
Benzene	NA	NA	N/A	N/A			
Toluene	NA	NA	N/A	N/A			
Ethylbenzene	NA NA	NA	N/A	N/A			
Xylenes	NA	NA	N/A	N/A			
MTBE	NA	NA	N/A	N/A			
TBA	NA	NA	N/A	N/A			
1,2-DCA	NA	NA NA	N/A	N/A			
Lead	NA .	NA	N/A	N/A			
PCE	NA NA	NA .	N/A	N/A			
TCE	NA	NA	N/A	N/A			

MCL - Maximum Contaminant Levels

NL - Notification Level

FREE PRODUCT: None identified

#### VI. SOIL AND GROUNDWATER REMEDIATION:

Soil Excavation: None Identified.

In-Situ Soil Remediation: None Identified.

Soil Remediation: None Identified.

Groundwater Remediation: None Identified.

Groundwater Monitoring Summary: None Identified.

VII. SENSITIVE RECEPTOR SURVEY: None Identified.

#### VIII. COMMENTS AND JUSTIFICATION FOR RECOMMENDED ACTION:

Site Description: None Identified.

#### CLOVERDALE UNIFIED SCHOOL DISTRICT -3-Claim No. 1081

March 12, 2009

Site History: Pursuant to an annual review letter dated September 25, 2008, the Department of Health Services of Sonoma County has issued multiple directives to the Cloverdale School District, which is a RP in this case, on various dates since 2001. However, the School District has not responded to any of the directives, and site is still out of compliance.

Remediation Summary: None Identified.

Contaminant Exposure Pathway Evaluation: Unknown

Recommendation: The Department of Health Services of the Sonoma County received concurrence for closure of the site by the North Coast Regional Board in 2001, but due to pending items the site has not been closed yet. Since 2001, on several occasions, the County has requested that Cloverdale Unified School District abandoned the site monitoring wells.

However, the District has not responded to any of the County directives, and the groundwater-monitoring well MW5 has not been destroyed properly. The School District should understand that if the well is not abandoned properly, it might create a conduit for migration of contaminants to the groundwater zone.

Therefore, the Fund recommends that the County should use enforcement if necessary in order to bring the District into compliance with State and County Regulations. Please note that prior to the abandonment of the well, a groundwater sample should be collected from MW5. Upon review of the lab result, the County should decide whether to abandon the well and close the site.

The Fund will review this site next year to track progress.

Aky 3/17/09 Abdul Karim Yusufzai

**Engineering Geologist Technical Review Unit** 

(916) 341-5742

Robert Trommer, CHG

Senior Engineering Geologist Chief, Technical Review Unit

(916) 341-5684



## COUNTY OF SONOMA DEPARTMENT OF HEALTH SERVICES ENVIRONMENTAL HEALTH DIVISION

**INVOICE** 54880

3313 Chanate Road Santa Rosa, CA 95404-1795 (707) 565-4724

19449

04/27/07

ID# 00002426

Rev. Code 3664

CLAUDIA ROSATTI CLOVERDALE UNIFIED SCHOOL DIST 97 SCHOOL ST CLOVERDALE, CA 95425

. Description: Geotracker Maintenance Fee

Site: Cloverdale High School

509 Cloverdale Blvd N Cloverdale

Total Due

**36** 

Payment Due Date

05/27/07

The Environmental Health Division (EHD) oversees the referenced Leaking Underground Storage Tank site by contractual authority with the State Water Resource Control Board (SWRCB). State law now requires that electronic submittals pertaining to sites be uploaded to the State Geotracker web site. In accordance with the SWRCB contract, EHD is responsible for the review and acceptance of Geotracker submittals and for the maintenance of required database fields. The SWRCB contract did not increase the amount of revenue EHD receives to perform the work.

The Geotracker Maintenance Fee is required to fulfill the State requirement. The fee is being billed to the active primary Responsible Party of the site. You have been advised of your status as the Payee and are the only Responsible Party being invoiced. Responsible Parties with eligible SWRCB Cleanup Fund claims may submit this expense to the fund for reimbursement.

VISA and MasterCard payments now accepted by calling 707-565-4724.

ENTERED CD 279293*#

436.88

436.00

436.00

< 9:40

0.00

053664D MAINTFEE

TTLAMT

R/A CK CHANGE

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04/28/07



#### STATE WATER RESOURCES CONTROL BOARD DIVISION OF CLEAN WATER PROGRAMS UST LOCAL OVERSIGHT PROGRAM

SITE SPECIFIC INVOICE

Inv. # 00046

Page 172

Date 07/25/97

Contract#: 5-018-550-1

Site Code: 00002426

Source of Funds: F

Substance: 12036

Site Name: Cloverdale High School

Petroleum: Y

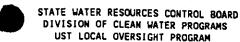
Date First Reported: 07/17/86

Address:

509 Cloverdale

Cloverdale, 95425-City:

•••••	Date of		Empl. Class			Hours Worked		Hourly Rates (\$)		Total Labor
	Work	Employee Name	Code	Code	ST	· OT	ST	OT	(.0978)	Costs (\$)
		• • • • • • • • • • • • • • • • • • • •								•••••
1	01/22/97	Ives, C.	2612	215	0.9		39.17	58.76	.0978	38.70
				Total	This Site		35.25	0.00	.0978	\$ 38.70





Inv. # 00041

Page 247

Date 05/31/96

#### SITE SPECIFIC INVOICE

Contract#: 5-018-550-0

Site Code: 00002426

Source of Funds: F

Substance: 12036

Petroleum: Y

Site Name: Cloverdale High School

Address:

509 Cloverdale

Date First Reported: 07/17/86

City: Cloverdale, 95425-

	Date of		Empl. Class Activity		Hours Worked		Hourly Rates (\$)		Indirect Cost	Total Labor	abor
	Work	Employee Name	Code	Code	ST	ОТ	ST	OT	(.0909)	Costs	
	• • • • • • • • • • • • • • • • • • • •				• • • • • • • • • • • • • • • • • • • •				••••		••••
1	12/21/95	Ives, C.	2612	215	0.3		38.32	57.48	.0909	17	2.55
				Total	This Site		11.50	0.00	.0909	\$ 17	2.55



#### STATE WATER RESOURCES CONTROL BOARD DIVISION OF CLEAN WATER PROGRAMS UST LOCAL OVERSIGHT PROGRAM

#### SITE SPECIFIC INVOICE

Inv. # 00039

Page 188

Date 01/16/96

1

Contract#: 5-018-550-0

Site Code: 00002426

Source of Funds: F

Substance: 12036

Site Name: Cloverdale High School

Petroleum: Y

Address: 509 Cloverdale

Date First Reported: 07/17/86

City:

Cloverdale, 95425-

Total Labor	Indirect Cost	ates (\$)	Hourly R	Jorked	Hours 1	Activity	Empl. Class		D-44	
Costs (\$)	(.0909)	от	ST	ОТ	ST	Code	Code	Employee Name	Date of Work	
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4.18	.0909	57.48	38.32		0.1	215	2612	Ives, C.	11/14/95	2
<b>\$</b> 12.54	.0909	0.00	11.49		This Site	Total 1				

STATE WATER RESOURCES CONTROL BOARD DIVISION OF CLEAN WATER PROGRAMS UST LOCAL OVERSIGHT PROGRAM

SITE SPECIFIC INVOICE

Inv. # 00038

Page 242

Date 11/16/95

1

Contract#: 5-018-550-0

Site Code: 00002426

Source of Funds: F

Substance: 12036

Site Name: Cloverdale High School

Petroleum: Y

Address:

509 Cloverdale

Date First Reported: 07/17/86

City:

Cloverdale, 95425-

	e		Empl. Class	Activity	Hours	. Hours Worked		Hourly Rates (\$)		Total Labor
	Date of Work	Employee Name	Code		ST	OT	ST	ОТ	Cost (.0909)	Costs (\$)
1 07	7/06/95	Ives, C.	2612	215	0.1		38.32	57.48	.0909	4.1
2 07	7/25/95	Ives, C.	2612	215	0.2	,	38.32	57.48	.0909	8.3

#### **COUNTY OF SONOMA**

Department of Health Services Environmental Health Division Hazardous Materials Section 1030 Center Drive, Suite A Santa Rosa, CA 95403-2067

Site ID#:	2426-F	Case Type:	Groundwater			
Reg. Board ID#:		Date in LUST:		Date	Closed:	
Site Name:	Cloverdale High Scho	ol				
Site Address:	509 Cloverdale Blvd. I Cloverdale, CA 95425					
RP Name & Address:						
	Phone:	Fax:	Phone	e:	Fax:	
Property Owner & Address:						
Tank Owner & Address:						
Tank Oper. & Address:						
Consultant & Address:	Fred Hayden/Don Bra Recon Environmental 7000 Marina Blvd. 4th Brisbane, CA 94005	Corp.				
	Phone: (415) 742-99	00 Fax:	Phone	e:	Fax:	

90-3. [CI/212]

Spoke to Michael Hogan of CERTIFIED/Earth Metrics (415) 742-9900. Client wants to 07/18/94 begin work. Please review work plan. Reply: I will try to get to wp this week and will call if I have problems. Stamped Signature by RG, RCE or REG is one thing that will be needed. 07/19/94 (Tue) Set up computer log. Transferred 07/18/94 entry. [CI/215] Wrote response (dated 07/28/94) to workplan received on May 11, 1994. [CI/215] 07/27/94 (Wed) Reviewed above letter with Mary A. Made entries above. [CI/204] 07/28/94 (Thu) 08/02/94 (Tue) Revised 7/28/94 workplan response. [CI/215] 08/16/94 (Tue) Telephone call from consultant Don Bransford. He is revising the WP. He asks: What level must soil be cleaned up? I discussed Mary Allen. Reply: NCRWQCB still requires cleanup to ND. What revisions must be make to the WP before resubmittal? Reply: I will review file and call him back. [CI/212] TC to Fred Hayden. Discussed the need for a revised workplan to include Health & Safety 08/18/94 (Thu) Plan, Statement of Qualifications, HW Training Certificates for employees, Standard Operating Procedures, and all the items indicated in my letter dated August 2, 1994. We also discuss the need for the Waste Discharge Permit from the NCRWQCB because they propose treatment of the soil. I supplied him with Joan Fleck's phone number. Dr. Sato hopes that the work can begin work prior to start of the school year. I don't see why this can't happen if he can get the Waste Discharge Permit. He will also get a permit from the Northern Sonoma County APCD. Telephone call from Fred Hayden. He reports consultant name change from CERTIFIED to 08/31/94 (Wed) Recon Environmental Corp. Address is the same. We discussed MW that is in soil contamination. He will destroy it. This must be included in the WP and he must submit a MW

Permit Application, I will have Program Clerk mail him an application, Attachment 3, and AO

#### Second Quarter FY 94-95 September 27, 1994 to December 19, 1994

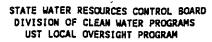
Discussed storage of drums with contaminated soil with John Tracy of the Dept. [CI 204] 09/27/94 (Tue) Rec'd 10/17 VM message from Fred Hayden of Recon Envir. TPHd was 50 ppm. He wants to 10/18/94 (Tue) backfill and destroy MW. Call at 742-9900. [CI 212] Discussed workplan. They would like to implement by the last week of Oct. Discussed 10/20/94 (Thu) treatment of soil by Applied Biotics. Yes! they will definitely need a Waste discharge Permit from NCRWOCB. Drums of soil will also be treated with stockpiled soil. In phase II, they will overexcavate and fill with the treated soil. Discrete samples must be taken 1/20cy and be N/D. The well will be dug out. Reply: A MW Permit will be needed. In addition, prior to implementation, all items requested in my response letter must be received, i.e., SOPs, Professional Stamp & Signature, Statement of Quals, etc. [CI/212] Rec'd 11/28 12:11 VM message from Fred Hayden of Recon Environmental. He has questions. 11/29/94 (Tue) Phone at (415) 742-9900. [CI/212]

#### Third Quarter FY 94-95 December 20, 1995 to March 13, 1995

01/11/95 (Wed) Updated Site Activity Log. Reconciled log with database records. [CI 215]

01/11/95 (Wed) Printed Site Activity Log and reviewed for inclusion with Draft Invoice mail-out. [CI 413]

Fourth Quarter FY 94-95 March 14, 1995 to June 30, 1995



SITE SPECIFIC INVOICE

Inv. # 00035

Page 224

Date 02/23/95

1

Contract#: 4-021-550-0

Site Code: 00002426

Source of Funds: F

Substance: 12036

Petroleum: Y

Address:

509 Cloverdale

Date First Reported: 07/17/86

City:

Cloverdale, 95425-

Site Name: Cloverdale High School

	Date of		Empt. Class	Activity	Hours	lorked	Hourly A	Rates (\$)	Indirect Cost	Total Labor
	Work Employee Name	Code	Code Code	ST	OT	ST	· OT	(-0909)	Costs (\$)	
1	09/27/94	Ives, C.	2612	204	0.1	• • • • • • • •	34.84	52.26	.0909	3.80
2	10/18/94	Ives, C.	2612	212	0.1		34.84	52.26	.0909	3.80
3	10/20/94	Ives, C.	2612	212	0.2		34.84	52.26	.0909	7.60
4	11/29/94	Ives, C.	2612	212	0.1	,	34.84	52.26	.0909	3.80
				Total 1	his Site		17.41	0.00	.0909	\$ 19.00

#### STATE WATER RESOURCES CONTROL BOARD DIVISION OF CLEAN WATER PROGRAMS UST LOCAL OVERSIGHT PROGRAM

SITE SPECIFIC INVOICE

Inv. # 00034

Page 262

Date 10/25/94

Contract#: 4-021-550-0

Site Code: 00002426

Source of Funds: F

Substance: 12036

Site Name: Cloverdale High School

Petroleum: Y

Address:

509 Cloverdale

Date First Reported: 07/17/86

City:

Cloverdale, 95425-

	Date of		Empl. Class	Activity	Hours	Worked	Hourly I	Rates (\$)	Indirect Cost	Tabil Labar
	Work	Employee Name	Code	Code	ST	ОТ	ST	от	(.0909)	Total Labor Costs (\$)
1	07/12/94	Ives, C.	2612	210	0.2		34.84	52.26	.0909	7.60
2	07/12/94	Ives, C.	2612	210	0.6		34.84	52.26	.0909	22.80
3	07/18/94	Ives, C.	2612	215	0.2		34.84	52.26	.0909	7.60
4	07/18/94	Ives, C.	2612	215	1.1		34.84	52.26	.0909	41.80
5	07/19/94	Ives, C.	2612	215	0.3		34.84	52.26	.0909	11.40
6	07/27/94	Ives, C.	2612	215	1.5		34.84	52.26	.0909	57.01
7	07/28/94	Ives, C.	2612	204	0.3		34.84	52.26	.0909	11.40
8	07/28/94	Allen, M.	1080	204	0.2		36.68	55.02	.0909	8.01
9	08/02/94	Ives, C.	2612	215	0.6		34.84	52.26	.0909	22.80
10	08/16/94	Ives, C.	2612	215	0.4		34.84	52.26	.0909	15.21
11	08/16/94	Ives, C.	2612	212	0.2		34.84	52.26	:0909	7.60
12	08/18/94	Ives, C.	2612	204	0.3		34.84	52.26	.0909	11.40
13	08/18/94	Allen, M.	1080	204	0.3		36.68	55.02	.0909	12.00
14	08/29/94	Ives, C.	2612	212	0.1		34.84	52.26	.0909	3.80
15	08/30/94	Ives, C.	2612	212	0.1		34.84	52.26	.0909	3.80
16	08/31/94	Ives, C.	2612	212	0.4		34.84	52.26	.0909	15.21
	****			Total T	his Site		237.82	0.00	.0909	<b>s</b> 259.4

Site ID# 00002426 - Cloverdale High School, 509 Cloverdale Blvd

******	========		*********			======	======	========	=========	========
Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Subtotal	Costs	Total
01/21/94	215	Report/Workplan/Data Review	0.2	Ailen, M.	1080	35.79	53.69	7.16	0.99	8.15
02/22/94	215	Report/Workplan/Data Review	0.3	Allen, M.	1080	35.79	53.69	10.74	1.48	12.22
02/23/94	204	Reg. Bd./Other Agencies Mtg.	0.2	Allen, M.	1080	35.79	53.69	7.16	0.99	8.15
04/21/94	212	RP/Int. Party Consult./Meeting	0.2	Allen, M.	1080	35.79	53.69	7.16	0.99	8.15
05/02/94	210	Site Visit	0.5	Ives, C.	2612	33.40	50.10	16.70	2.30	19.00
05/02/94	210	Site Visit	0.8	Ives, C.	2612	33.40	50.10	26.72	3.68	30.40
05/03/94	215	Report/Workplan/Data Review	1.2	Ives, C.	2612	33.40	50.10	40.08	5.52	45.60
05/12/94	215	Report/Workplan/Data Review	0.8	Allen, M.	1080	35.79	53.69	28.63	3.94	32.57
05/12/94	204	Reg. Bd./Other Agencies Mtg.	0.1	Allen, M.	1080	35.79	53.69	3.58	0.49	4.07
05/13/94	204	Reg. 8d./Other Agencies Mtg.	0.3	Allen, M.	1080	35.79	53.69	10.74	1.48	12.22
05/31/94	212	RP/Int. Party Consult./Meeting	0.2	Allen, M.	1080	35.79	53.69	7.16	0.99	8.15
05/31/94	215	Report/Workplan/Data Review	0.2	Ives, C.	2612	33.40	50.10	6.68	0.92	7.60
06/28/94	204	Reg. Bd./Other Agencies Mtg.	0.3	Allen, M.	1080	35.79	53.69	10.74	1.48	12.22
06/28/94	204	Reg. Bd./Other Agencies Mtg.	0.1	Ives, C.	2612	33.40	50.10	3.34	0.46	3.80
								OT/ST	Ind Cost	Total
		То	tal Hours					Total	Total	Charges
			5.4					186.59	25.71	212.30
========	:=======									=======

Site ID# 00002426 - Cloverdale High School 509 Cloverdale Blvd

Date of	Activity		Hours/		Emp.	ST	ОТ	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Subtotal	Costs	Total
08/04/92	212	RP/Int. Party Consult./Meeting	0.3	Sullivan, M.	2614	35.68	53.52	10.70	1.07	11.77
09/23/92	212	RP/Int. Party Consult./Meeting	0.4	Sullivan, M.	2614	35.68	53.52	14.27	1.43	15.70
09/25/92	212	RP/Int. Party Consult./Meeting	0.2	Sullivan, M.	2614	35.68	53.52	7.14	0.71	7.85
09/30/92	215	Report/Workplan/Data Review	0.4	Sullivan, M.	2614	35.68	53.52	14.27	1.43	15.70
09/30/92	212	RP/Int. Party Consult./Meeting	0.5	Sullivan, M.	2614	35.68	53.52	17.84	1.78	19.62
10/01/92	210	Site Visit	0.7	Sullivan, M.	2614	35.68	53.52	24.98	2.50	27.48
10/01/92	210	Site Visit	1.4	Sullivan, M.	2614	35.68	53.52	49.95	5.00	54.95
10/20/92	215	Report/Workplan/Data Review	0.3	Sullivan, M.	2614	35.68	53.52	10.70	1.07	11.77
10/21/92	212	RP/Int. Party Consult./Meeting	0.3	Sullivan, M.	2614	35.68	53.52	10.70	1.07	11.77
11/02/92	212	RP/Int. Party Consult./Meeting	0.8	Sullivan, M.	2614	35.68	53.52	28.54	2.85	31.39
11/02/92	212	RP/Int. Party Consult./Meeting	0.6	Sullivan, M.	2614	35.68	53.52	21.41	2.14	23.55
12/22/92	212	RP/Int. Party Consult./Meeting	0.5	Sullivan, M.	2614	35.68	53.52	17.84	1.78	19.62
								OT/ST	Ind Cost	Total
		То	tal Hours					Total	Total	Charges
			6.4					228.34	22.83	251.17

Site ID# 00002426 Cloverdale High School, 509 Cloverdale Blvd

Date of	Activity		Hours/		Emp.	ST	ОТ	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Subtotal	Costs	Total
07/25/91	215	Report/Workplan/Data Review	1.0	Sullivan, M.	2614	33.80	50.70	33.80	3.38	37.18
10/31/91	215	Report/Workplan/Data Review	0.7	Sullivan, M.	2614	33.80	50.70	23.66	2.37	26.03
11/01/91	215	Report/Workplan/Data Review	2.0	Sullivan, M.	2614	33.80	50.70	67.60	6.76	74.36
11/01/91	215	Report/Workplan/Data Review	0.6	Sullivan, M.	2614	33.80	50.70	20.28	2.03	22.31
11/12/91	212	RP/Int. Party Consult./Meeting	0.5	Sullivan, M.	2614	33.80	50.70	16.90	1.69	18.59
01/13/92	212	RP/Int. Party Consult./Meeting	0.5	Sullivan, M.	2614	33.80	50.70	16.90	1.69	18.59
01/16/92	212	RP/Int. Party Consult./Meeting	0.6	Sullivan, M.	2614	33.80	50.70	20.28	2.03	22.31
01/27/92	212	RP/Int. Party Consult./Meeting	0.4	Sullivan, M.	2614	33.80	50.70	13.52	1.35	14.87
02/18/92	212	RP/Int. Party Consult./Meeting	0.4	Sullivan, M.	2614	33.80	50.70	13.52	1.35	14.87
04/15/92	212	RP/Int. Party Consult./Meeting	0.1	Sullivan, M.	2614	33.80	50.70	3.38	0.34	3.72
05/05/92	212	RP/Int. Party Consult./Meeting	0.5	Sullivan, M.	2614	33.80	50.70	16.90	1.69	18.59
05/26/92	215	Report/Workplan/Data Review	1.0	Sullivan, M.	2614	33.80	50.70	33.80	3.38	37.18
								01/51	Ind Cost	Total
		To	tal Hours					Total	Total	Charges
			8.3					280.54	28.06	308.60

Site ID# 00002426; Cloverdale High School, 509 Cloverdale Blvd

Date of	Activity		Hours/		Emp.	ST	OT	OT/ST	Indirect	
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Subtotal	Costs	Tota
07/10/90	212	RP/Int. Party Consult./Meeting	0.5	Randall, G.	1080	27.26	40.89	20.45	1.09	21.5
07/10/90	212	RP/Int. Party Consult./Meeting	0.9	Randall, G.	1080	27.26	40.89	36.80	1.96	38.7
07/17/90	212	RP/Int. Party Consult./Meeting	0.3	Randall, G.	1080	27.26	40.89	8.18	0.44	8.6
07/17/90	212	RP/Int. Party Consult./Meeting	0.8	Randall, G.	1080	27.26	40.89	21.81	1.16	22.9
07/24/90	212	RP/Int. Party Consult./Meeting	0.2	Randali, G.	1080	27.26	40.89	5.45	0.29	5.7
08/24/90	210	Site Visit	0.5	Sullivan, M.	2614	31.77	47.66	15.89	0.85	16.7
09/26/90	215	Report/Workplan/Data Review	0.3	Sullivan, M.	2614	31.77	47.66	9.53	0.51	10.0
10/12/90	215	Report/Workplan/Data Review	0.5	Sullivan, M.	2614	31.77	47.66	15.89	0.85	16.7
10/23/90	215	Report/Workplan/Data Review	0.5	Sullivan, M.	2614	31.77	47.66	15.89	0.85	16.7
11/15/90	215	Report/Workplan/Data Review	0.5	Sullivan, M.	2614	31.77	47.66	15.89	0.85	16.7
12/05/90	215	Report/Workplan/Data Review	1.0	Sulliven, M.	2614	31.77	47.66	31.77	1.69	33.4
12/05/90	215	Report/Workplan/Data Review	1.1	Sullivan, M.	2614	31.77	47.66	34.95	1.86	36.8
01/02/91	210	Site Visit	2.1	Sullivan, M.	2614	31.77	47.66	66.72	3.55	70.2
02/25/91	215	Report/Workplan/Data Review	0.7	Sullivan, M.	2614	31.77	47.66	22.24	1.18	23.4
04/05/91	215	Report/Workplan/Data Review	1.8	Sullivan, M.	2614	31.77	47.66	57.19	3.04	60.2
04/08/91	215	Report/Workplan/Data Review	1.1	Sullivan, M.	2614	31.77	47.66	34.95	1.86	36.8
04/08/91	215	Report/Workplan/Data Review	1.0	Sullivan, M.	2614	31.77	47.66	31.77	1.69	33.4
04/12/91	215	Report/Workplan/Data Review	0.9	Sullivan, M.	2614	31.77	47.66	28.59	1.52	30.1
04/23/91	210	Site Visit	0.7	Sulliven, M.	2614	31.77	47.66	22.24	1.18	23.4
05/14/91	215	Report/Workplan/Data Review	0.9	Sullivan, M.	2614	31.77	47.66	28.59	1.52	30.1
05/23/91	210	Site Visit	0.2	Sulliven, M.	2614	31.77	47.66	6.35	0.34	6.6
05/23/91	210	Site Visit	0.4	Sullivan, M.	2614	31.77	47.66	12.71	0.68	13.3
								OT/ST	Ind Cost	Tota
		То	tal Hours					Total	Total	Charge
			16.9					543.85	28.96	572.8

## Site ID# 00002426 - Cloverdale High School, 509 Cloverdale

48888888		**********************		***=========	======	======		========		-65355666			
Date of	Activity		Hours/		Emp.	ST	ОТ	OT/ST	Indirect				
Work	Code	Description of Activity	Activity	Employee Name	Code	Rate	Rate	Subtotal	Costs	Total			
06/12/90	207	Research	1.2	Randall, G.	1080	25.05	37.58	30.06	1.60	31.66			
06/14/90	206	Clerical	1.0	Standridge, S.	0003	14.73	22.10	14.73	0.78	15.51			
06/28/90	206	Clerical	0.3	Standridge, S.	0003	14.73	22.10	4.42	0.24	4.66			
								OT/ST	Ind Cost	Total			
			Total Hours					Total	Total	Charges			
			2.5					49.21	2.62	51.83			
=======													

#### STATE WATER RESOURCES CONTROL BOARD

DIVISION OF CLEAN WATER PROGRAMS 2014 T STREET, SUITE 130 P.O. BOX 944212 SACRAMENTO, CALIFORNIA 94244-2120 (916) 227-4307 (916) 227-4530 FAX

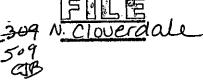






Cloverdale Unified School District C/o Donald Sato

97 School Street Cloverdale, CA 95425



#### **UNDERGROUND STORAGE TANK CLEANUP FUND, CLAIM NO. 001081**

The State Water Resources Control Board (State Board) takes pleasure in issuing the attached Letter of Commitment in an amount not to exceed \$136,000. This Letter of Commitment is based upon our review of the corrective action costs incurred to date and your application received on January 17, 1992 and may be modified by the State Board in writing by an amended Letter of Commitment.

The State Board will take steps to withdraw this Letter of Commitment after 90 calendar days from the date of this transmittal letter unless you proceed with due diligence with your cleanup effort. This means that you must take positive, concrete steps to ensure that corrective action is proceeding with all due speed. For example, if you have not started your cleanup effort, you must obtain three bids and sign a contract with one of these bidders within 90 calendar days. If your cleanup effort has already started and was delayed, you must resume the expenditure of funds to ensure that your cleanup is proceeding in an expeditious manner. You are reminded that you must comply with all regulatory agency time schedules and requirements. We constantly review the status of all active claims, and failure to proceed with due diligence will be grounds for withdrawal of this Letter of Commitment.

You should read the terms and conditions listed in the Letter of Commitment. Also attached you will find:

- A "Reimbursement Request Instructions" package. You should retain this package for future reimbursement requests. Among other information, the package includes instructions for completion of the "Reimbursement Request" form and the "Spreadsheet". These instructions must be followed when seeking reimbursement for corrective action costs incurred after January 1, 1988. Included in these instructions are samples of Reimbursement Request forms and completed Spreadsheets. Within the package also included are:
  - A "Bid Summary Sheet" to document data on bids received.
  - Recommended Minimum Invoice Cost Breakdown.
  - A "Certification of Non-Recovery From Other Sources" which <u>must be returned before any reimbursements can be</u> made.
- "Reimbursement Request" forms which you must use to request reimbursement of costs incurred.
- "Spreadsheet" forms which you must use in conjunction with your Reimbursement Request.
- "Vendor Data Record" (Std. Form 204) which <u>must be completed and returned with your first Reimbursement</u> Request.

If you have any questions regarding the Letter of Commitment or the Reimbursement Request package, please contact Deborah Cheung at (916) 227-0748.

Sincerely,

Dave Deaner, Manager Underground Storage Tank Cleanup Fund Program

Attachments

cc: California Regional Water Quality

Control Board, North Coast Region

Attn: Luis Rivera 5550 Skylane Blvd., Suite A Santa Rosa, CA 95403 Sonoma County EHD Attn: Mary Allen 1030 Center Drive, Suite A Santa Rosa, CA 95403 CLAIM NO: 001081 AMENDMENT NO:

Cloverdale Unified School District BALANCE FORWARD: CLAIMANT: \$0

CO-PAYEE: None

CLAIMANT ADDRESS:

RECEIVED

THIS AMOUNT: \$136,000

c/o Donald Sato 97 School Street

**NEW BALANCE:** 

\$136,000

Cloverdale, CA 95425 HAZARDOUS MATERIALS

TAX ID / SSA NO.: 94-6002635

Subject to availability of funds, the State Water Resources Control Board (State Board) agrees to reimburse Cloverdale Unified School District (Claimant) for eligible corrective action costs at 309 N. Cloverdale Blvd., Cloverdale, CA 95425 (Site). The commitment reflected by this Letter is subject to all of the following terms and conditions:

- Reimbursement shall not exceed \$136,000 unless this amount is subsequently modified in writing by an amended Letter of Commitment.
- The obligation to pay any sum under this Letter of Commitment is contingent upon 2. availability of funds. In the event that sufficient funds are not available for reasons beyond the reasonable control of the State Board, the State Board shall not be obligated to make any disbursements hereunder. If any disbursements otherwise due under this Letter of Commitment are deferred because of unavailability of funds, such disbursements will promptly be made when sufficient funds do become available. Nothing herein shall be construed to provide the Claimant with a right of priority for disbursement over any other claimant who has a similar Letter of Commitment.
- All costs for which reimbursement is sought must be eligible for reimbursement and 3. the Claimant must be the person entitled to reimbursement thereof.
- Claimant must at all times be in compliance with all applicable state laws, rules and regulations and with all terms, conditions, and commitments contained in the Claimant's Application and any supporting documents or in any payment requests submitted by the Claimant.
- 5. No disbursement under this Letter of Commitment will be made except upon receipt of acceptable Standard Form Payment Requests duly executed by or on behalf of the Claimant. All Payment Requests must be executed by the Claimant or a duly authorized representative who has been approved by the Division of Clean Water Programs.
- Any and all disbursements payable under this Letter of Commitment may be withheld if the Claimant is not in compliance with the provisions of Paragraph 5 above.
- 7. Neither this Letter of Commitment nor any right thereunder is assignable by the Claimant without the written consent of the State Board. In the event of any such assignment, the rights of the assignee shall be subject to all terms and conditions set forth in this Letter of Commitment and the State Board's consent.
- This Letter of Commitment may be withdrawn at any time by the State Board if 8. completion of corrective action is not performed with reasonable diligence.

IN WITNESS WHEREOF, this Letter of Commitment has been issued by the State Board this 14th day of March, 1994.

BY Storage Tank Cleanup Fund Program Manager

STATE USE : CALSTARS CODING: 0550 - 569.02 - 30530

Chief, Division Administrative Services

STATE WATER RESOURCES CONTROL BOARD

CORRECTO	SITE AL AESS 509 N. Cloverdale Blva, Cloverdale 95425
į.	PAGE 3
DATE	ACTION REQUIRED/RESPONSE
	Rect 3/26/87 Rpt on Remedial Smeet of 2 sites
	(509 N. Cloverdale + 1298, Washington)
3/13/89	Rect mw Install & Sampl. NP
4/12/89	Str to ce fr. NIRB Ack rect of above rpts w/ commo
. ,	4 75:
11/3/89	Rich WP Addendum
2/11/89	11 th and 1 dicken of the
125/90	Reca Prel. Owest. Rpt.
6/28/90	
ulia las	The the the desire to 1. 3 + comments
11/12/20	Recol response to 6/28/90 lts.
261/00	Recol WP for Supplemental Invest.
2/21/91	Str to re fr SC - Supmit Status / Summary rpt
	8/15/91
3/26/91	Rec'd Supplemental Rpt.
4/9/91	Str to cl fr Sc - Ack rect of above w/gen. conc.
<i>′</i> .	requests & comments.
4/11/91	Redd &w mon. & Sampline Results
5/10/91	Rec'd response to 4/9/91 lts.
7/22/91	Racid Afr Mon + Sampling Results
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	Str to cl of SC - Ack rect of above. Submit wir remediation by 12/13/91
2/27/91	lead the fr cl - we estimate of cons. over alloca
10-10-	funds. SB2004 possibilities
1/2442	Reca Remed Proposal
0/19/92	Recd lab analysis and.
0/30/91	Reca Arnal Otr GW+ Sampling Regults
2/92	Rica Site Remed Proposal Us Trans Tick
1/2/92	Freta Trans Mts notes - State Lundin sanding "The
NFIRMATION (	After reviewing the lead agency site file, the claim reviewer has determined
	that the cialmant is in substantial compliance with corrective action requirem
MA ACENIAY A	REVIEWER'S SIGNATURE DATE SIGNATURE
NO AGENCY CC	INCURRENCE: As of this date, the lead agency representative concurs with the determination that the claimant is in compliance with applicable corrective action requirements.
	An a 111/1/1/
·	2/22/96
AFF RECOMME VIEWER'S SIGN	NDATION: () APPROVED ( AREFERRED TO TEAM LEADER - See Comments, Page 2.
ised 10/92	DATE SIGNED
L Calm	of and Washington Elam. to be combined + treated / disposed of

CLAIM NO. 1081

### TRANSACTION REPORT

FEB-22-94 TUE 7:27

### SEND

	#	DATE	S.T.	NAME	TIME	PGS	NOTE	DP
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COUNTY OF SONOMA
DEPARTMENT OF HEALTH SERVICES

97-4396-#W6 ENVIRONMENTAL HEALTH DIVISION

3313 Chanate Road Santa Rosa, CA 95404-1795 (707) 576-4789



Number:

r: 5138 HZ

#348054

G# 00080

June 25, 1997

CLOVERDALE HIGH SCHOOL 97 SCHOOL STREET CLOVERDALE, CA 95425

5138*# 851476B

051476B

SMOIYEEE 138,00

TTLAMT

138.00

R/A CK

138.00 0.00

FACILITY: Cloverdale High School

509 Cloverdale Blvd Cloverdale, CA 95425

07/30/97

CHANGE 0798

15:17

PH # 00002426 Master # 00004569

#### 1997 HAZARDOUS MATERIALS PROGRAM FEES

	State Surcharge	,			\$ 0.00
1476	Hazardous Waste Generator			,	\$ 138.00
	Underground Storage Tanks				\$ 0.00
	Hazardous Materials Storage (2185)		,		\$ 0.00
-44	•	TOTAL	DUE	7	\$ 138.00

As per section 29.9(c) Sonoma County Ordinance 5015, a 10% penalty fee will be collected for all fees that are delinquent for 30 days. For each additional month or fraction in which the delinquency continues, an additional 10% penalty shall be collected.

Herzog Associates

Geoscientists

1318 Redwood Way, Suite 200 Petaluma, CA 94954 Tel (707) 792-5600 Fax (707) 792-5695

November 9, 1990 Project Number 15198.01-01-7



Dr. Donald Sato Cloverdale Unified School District 97 School Street Cloverdale, California 95425

RECEIVED
110V 1 3 1990

Dear Dr. Sato:

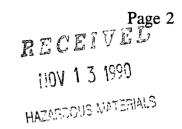
HAZARDOUS MATERIALS

The purpose of this letter is to address the June 28, 1990 correspondence from the Sonoma County Hazardous Materials Management Program (County) regarding work performed at the Washington Street Elementary School and Cloverdale High School during our Phase I investigations of the removed underground storage tanks at the subject sites. Each response in this letter is numbered corresponding to the County's original comments.

## Washington Street Elementary School - 129 Washington

- 1. Well MW-1 was the first boring/well to be drilled at this site. Groundwater was first encountered at a depth of approximately 25 feet below ground surface in the boring on the date of drilling. Our Work Plan for the site stated that we would drill all borings to approximately 15 feet below first encountered groundwater, hence the total depth of 40 feet. The 30 foot screen interval was selected because our Work Plan stated that the wells would be screened as high as possible with provision for adequate seals.
- 2. The sample from MW-2 at 5 feet was not analyzed to help define the extent of motor oil detected in MW-2 at 10 feet because sample hold time had expired by the time we got the analyses results for the 10 foot sample.
- 3. Further site work, which will be addressed in an upcoming Work Plan, will include analysis of MW-1 well water for soluble cadmium. Appropriate detection limits will be requested on the chain of custody form when samples are submitted to the laboratory for analysis.
- This comment has been discussed with Mr. Jules Skamarack, Laboratory Manager at NET Pacific, where sample analyses were performed. He indicated that although the Board requested new, lower reporting limits in May of 1989 for a number of analytes, NET was not able to achieve those

November 7, 1990 Cloverdale Unified School District Project Number 15198.01-01-7



reporting limits until approximately January of 1990. Thus samples run in the interim were analyzed by the former method with higher detection limits. He expressed that although this sort of thing is unfortunate, laboratories need time to research the work necessary to change their procedures to effectively achieve the new required limits. Additional work is then needed to modify their analytical equipment to achieve the lower reporting limits. Future site analytical work will utilize appropriate detection limits.

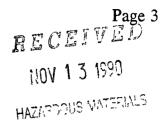
- 5. In addition to sampling the site groundwater monitoring wells on a quarterly basis, water levels in the wells will be measured on a monthly basis to provide additional groundwater monitoring information.
- 6. A Work Plan addressing additional investigation at the site is currently being prepared and will be completed on or about November 21, 1990. The Work Plan will be submitted to the County upon completion for their review and approval. The County will be notified of scheduled field work a minimum of 48 hours prior to implementation.

## M Cloverdale High School - 509 Cloverdale

- 1. A five foot screen interval was installed in MW-6 to screen the water producing zone identified between 15 and 20 feet below ground surface. Above this zone of gravelly sand was 15 feet of various layers of sandy clay (CL) materials. Some of the sandy clay layers were noted to contain petroleum odors and some were not. In order to prevent the creation of a conduit for free transmission of petroleum product into the groundwater (via the well and well filter material) through a layer which may have been acting to inhibit this transmission (the odor-free sandy clay layer below it), a short screen interval was installed to screen only the water producing zone delineated between depths of 15 and 20 feet below ground surface.
  - 2. Further site work, which will be addressed in an upcoming Work Plan, will include analysis of MW-6 well water for soluble chromium. Appropriate detection limits will be requested on the chain of custody form when



November 7, 1990 Cloverdale Unified School District Project Number 15198.01-01-7



samples are submitted to the laboratory for analysis.

- 3. See comment 4 for Washington Street Elementary School.
- √ 4. A Work Plan is currently being prepared to address further work needed at this site. The Work Plan will be submitted to the County upon completion.

#### Soil Pile

Treatment and/or disposal options for the soil pile generated during original tank removal activities will be addressed in the upcoming Work Plan.

We trust this provides the information you require at this time. Herzog will send copies of the above mentioned Work Plan to you, as well as the County and the North Coast Regional Water Quality Control Board for their review and approval. If you have any questions regarding these or other matters, please feel free to call either of the undersigned at (707) 792-5600.

Yours Very Truly,

HERZOG Associates, Inc. Environmental Services Division

Visa C. Alavins

Lisa Havens Staff Geologist

Marc W. Seeley Division Manager

LAH:MWS:pst (7207.83)

November 7, 1990 Cloverdale Unified School District Project Number 15198.01-01-7

Mr. Mark Sullivan cc:

Sonoma County Hazardous Materials Management Program

Sonoma County Hazaruous Manager 1030 Center Drive, Suite A
Santa Rosa, California 95403

Ms. Susan Warner

North Coast Regional Water Quality Control Board

HAZARDOUS MATERIALS



# COUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT

MARK A. KOSTIELNEY
Director of Public Health
GEORGE R. FLORES, M D
Health Officer

#### **ENVIRONMENTAL HEALTH SERVICES**

1030 CENTER DRIVE, SUITE, A

SANTA ROSA

CALIFORNIA 95403-2067

TELEPHONE (707) 525-6565

October 16, 1990

Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Subject:

Underground Tank Investigation at Cloverdale High School, 509 N. Cloverdale Blvd.,

Cloverdale, CA

This letter is in inquiry as to the status of your consultant addressing the comments in this Department's correspondence of June 28, 1990, relative to the above subject site. Please direct your consultant to submit a response by October 26, 1990, so I can be assured assessment of the site is proceeding in a timely manner.

Be advised that Ms. Randall is no longer with this Department, therefore, direct future correspondence to the undersigned.

If questions arise, please do not hesitate to call me at (707) 525-6570.

Sincerely,

MARK J. SULLIVAN, R.E.H.S.

Senior Hazardous Materials Specialist

MJS/ss

cc: Jan Goebel, North Coast Regional Water Quality Control Board

Marc Sceley, Herzog and Associates, 1318 Redwood Way, Suite 200, Petaluma, 94954



# COUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT

MARK A KOSTIELNEY
Director of Public Health
GEORGE R. FLORES, M D
Health Officer

#### **ENVIRONMENTAL HEALTH SERVICES**

1030 CENTER DRIVE, SUITE A

SANTA ROSA

CALIFORNIA 95403-2067

TELEPHONE (707) 525-6565

June 28, 1990

Cloverdale Unified School District 97 School Street Cloverdale, CA 95425 Attn: Donald Sato

Subject:

Underground Tank Investigation at Cloverdale High School, 509 N. Cloverdale Blvd., and Washington Street Elementary School, 129 S.

Washington Street, Cloverdale, CA

After reviewing Herzog Associates "Report of Underground Tank Investigations, Cloverdale Schools", I have several questions and comments regarding the investigation and recommendations for further work.

#### Washington Street Elementary School

- 1. Please provide the reasoning for extending MW-1 to 40 feet and installing a 30 foot screen interval.
- 2. Motor oil was detected in the soil sample from MW-2 at 10 feet. Why wasn't the sample collected at 5 feet analyzed to help define it's extent? It appears that further investigation in the vicinity of MW-2 is needed to define the source of the motor oil.
- 3. The concentration of cadmium detected in the groundwater sample from MW-1 exceeds the California Department of Health Services (DHS) Maximum Contaminant Level (MCL) of 0.01 parts per million (California Code of Regulations, Title 22, 2/11/89). Research should be conducted to assess whether the cadmium detected in water is due to native conditions or a result of heavy metal contamination. Because the MCL for cadmium in water is 0.01 ppm, the analytical laboratory needs to maintain reporting limits lower than the 0.02 ppm reported.
- 4. The Regional Water Quality Control Boards have established practical quantitation reporting limits which need to be maintained by the analytical laboratory. The reporting limits for TPH-gasoline in soil is 1.0 ppm, and 0.005 ppm for benzene, toluene, xylene, and ethylbenzene. If the reporting limits recommended by the Regional Boards cannot be achieved, sufficient justification needs to be submitted with the analytical results. Sample results which do not meet the recommended reporting limits may be considered invalid if the results are non-detect. All reporting limits presented in Appendix A for these chemicals exceeded the recommended limits without any explanation.
- 5. I concur with Herzog Associates recommendations for implementing a quarterly groundwater monitoring program at this site. However, water levels should be monitored on a monthly basis for a minimum of one year, covering one complete hydrologic cycle. This will provide information regarding seasonal fluctuations in groundwater flow direction and gradient.

6. Once a schedule for groundwater monitoring has been established, please provide our office a written plan which outlines the proposed work and provides a specific time schedule for the required monitoring. Notify this office of any changes of scheduled dates and/or times a minimum of 48 hours prior to the original scheduled time.

## =Cloverdale High School 509 Cloverdall Blud.

- 1. \( \square\) Please explain why only 5 feet of screen was installed in MW-6. According to the most recent water level data (11/29/89), the water level has risen well above the screened interval. This condition inhibits the detection of free product if it is present in MW-6.
- 2. The concentration of 0.11 ppm chromium, detected in the groundwater sample from MW-6 exceeds the DHS MCL of 0.05 ppm. Similar to the cadmium detected in the groundwater at the Washington Street Elementary School, research needs to be conducted to assess the source of chromium in the groundwater.
- 3. The practical quantitation reporting limits recommended by the Regional Water Quality Control Boards for soil samples analyzed for TPH-gasoline, benzene, toluene, xylene, and ethylbenzene were not maintained. See comment 4 for Washington Street Elementary School.
- 4. / I agree with Herzog Associates recommendation that the extent of soil contamination needs to be defined and remediated. In addition, a groundwater monitoring program needs to be initiated. Please submit a workplan which addresses the additional investigation needed at the site within 30 days of receipt of this letter.

#### Soil Pile

Please describe the intended method of treatment and/or disposal of the stockpiled soil.

Your prompt reply regarding these comments would be appreciated. Ensure that copies of all correspondence regarding these sites are sent to the North Coast Regional Water Quality Control Board. If you have any questions, please call me at (707) 525-6571.

Sincerely,

GENEVA RANDALL

Zeneva Randall

Geologist

GR/ss

cc: Sue Warner, North Coast Regional Water Quality Control Board
Marc Seeley, Herzog Associates, 1318 Redwood Way, Suite 200, Petaluma, CA

Facility Address_	509 N. Clo	RLY TIME RECORDING CARD	ID#
Applicant		RDALE	Date_4/7/87
Permit Submitted:	/_/ Tank Closure /_/ Monitoring Well	/_/ New Tank Construction /// Site Investigation	
Start Date Time	Finish Total Time Time (Hours)	Activity Code/Remarks (see reverse)	HazMat Sanitarian Initials
1-7-87 1 /2789	3/4	2	of RXIV

Gross Hours x \$	/Hour _	Gross Hours Total Fee
Total Fee Minus Permit	Fees = \$_	Permit Fees Paid Due
PHS-EH-83a (11/86)		Card No

	ID# 1002 Date 1/29
	Facility Name Cloverdale Unified School District
_ *: 	Facility Address 97 School
	/
FOR CLERICAL USE ONLY	/ Change of Status: / Ag Exempt, / Closure (all tanks at facility)  / Home Heating / City of  / Other
G#	/
// Log	Reason:
/ Inventory / Make file	/
/	had been a second of the secon
Rev. 4/16/86	Refund: / Reason / Re

THIMMIT

MCGMCDC

COUNTY OF SONOMA APPLICATION FOR PERMIT TO: APPLICATION FOR PUBLIC 2426 PUBLIC HEALTH DEPARTMENT HEALTH CLEARANCE FOR 3313 CHANATE RD. SANTA ROSA, CA 95404 PHONE 527-2711 NEW/REPLACEMENT REPAIR/MODIFY UNDERGROUND STORAGE TANK (includes leak detection) (includes product lines) CLOSURE Application is hereby made to the Sonoma County Health Officer for a permit This permit application must be signed on all 3 signature lines  $^{\circ}$ to construct, repair, or alter an underground storage tank in compliance by the same person (i.e., contractor or owner/builder). A letter of authorization from owner must accompany this with the code of Sonoma County or for clearance for other construction. application if agent is signing on owner's bahalf. APPLICANT: Please press hard (use black ink). Fill in between PERMIT NO. DATE ISSUED heavy lines only. FACILITY ADDRESS CLOUFEDILLE CLOUSE NALE OWNER'S NAME SCHOOL FACILITY NAME (if applicable) LLOUER DALE SCHOOL MAILING ADDRESS STO LLOUER DALE PHONE 894 - 2548 NEAREST CROSS STREET CITY MOR'S PARCEL NO. OPERATOR'S NAME (if different from above) CITY REQUELOWER ZIP FIRE DISTRICT MAILING ADDRESS ENGINEERING PENDOL EUM PHONE CITY PHONE 545-0360 **ADDRESS** TERMS OF PERMIT APPLICANT AGREES THAT: Health Department Sanitarian will be notified a minimum of 48 hours prior to commencing work. Health Department Sanitarian inspection will be obtained prior to covering the work. Any deviation from approved plan without prior approval of the Health Officer will be cause for stopping work until the changes are fully justified and approved. This permit is subject to revocation if found to be in nonconformance with Sonoma County Code or standards of the Public Health Department. Additional Items: It is understood that the issuance of a permit in no way indicates that a guarantee of perfect and indefinite operation is made by the County 001363D of Sonoma Public Health Department. HAZMAT 117.00 I hereby acknowledge that I have read this application and state that the above is correct and agree to comply with all County ordinances and TTLAMT 117,00 State laws regulating underground storage tanks. This permit shall expire by limitation if work authorized is not commenced within 365 days. CHECKS 117.00 CHANGE 0.00 7778 42 9:21 The undersigned applicant certifies as follows: 07/23/85 CONTRACTOR'S LICENSE LAW CERTIFICATE (complete either A or B) WORKMEN'S COMPENSATION CERTIFICATE (1. or 2. must be completed) />/ A. The applicant is licensed under the provisions of the />// 1. A currently effective certificate of Workmen's Compensation Contractors License Law under License Number Insurance coverage is on file with the Sonoma County Public 224358 which License is in full force Health Department. Compensation Insurance and effect. Policy # is currently in force. 7 B. The applicant is exempt from the provisions of the 2. I certify that in the performance of the work for which this Contractors License Law for the following reasons: permit is issued I shall not employ any person in any manner 1) Owner/Builder · so as to become subject to the workmen's compensation laws.

of California.

CONSTRUCTION APPROVED BY

(revised 12/85)

PLAN APPROVED BY

FOR OFFICE USE: FEE

2) Other (explain)

DATE

7-16-86

STATE SURCHARGE

WHEN APPROVED THIS IS YOUR PERMIT

DATE

re r			Your F	acility	Cloverdal 97 Schoo	e Unifie	g School Dist	2262 4
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b.	Plan check	and field review	(first tank)				\$141	
	Additional	tanks (#1	additional	tanks x	\$23)	· <del></del>	= \$164. \$23.00	00 27619
• c.	State surch	arge (#2	_ total tanks	x \$56)			\$112.00	47619
of al		r of Tanks 2		Total	. Fee Due	\$	\$417.00	619#0000 417.00 0000 417.00
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Type: Closure	No. of	Tanks/Wells: 2 Fees:	117.00
Date Received: 07/23/86		07/23/86 Receipt #: 2-777 Invoice #:	
Monitoring Well or		Interim Permit Issued:	1 /
Construction Finaled:	05/31/89	Operating Permit Issued:	1 1
Connents:	,		

& ASSOCIALES, INC.
GEOTECHNICAL CONSULTANTS JAN 26 1867

DIV. OF E.H.

Job No.: 5075.7-4-2

Date:

PUSLIC HEALTH DEPARTMENT

January 21, 1987

Transmittal

	'' ['] ''
To. Cloverdale Unified School	Regarding: SCOE Project
Attention: Mr. Doug Dorman	Tank Removal
97 School Street	ين المنافعة
Cloverdale, CA 95425	509 N, CLOVERDALE RD. 129 S. Washington Street
	Cloverdale, California
The Following	
1) Soil and Water analysis res	ults and Sample Chain-of-Custody.
2) Unauthorized Release Form.	ares and sample Chain-of-Custody.
	·
Transmitted for:	
Your use; please return them when you have finis	shed    Your use and need not be returned
☐ Your review; please return them with your comm	and held not be retained
Remarks:	
Please retain the attached analy	ses results and Chain-of-Custody
in your files for a permanent re	cord. Please fill out the attached
IIm A	orized Release form and submit
copies to the appropriate regula	tory area'
AP:mc	nd a Xerox copy to our office.
cc Mr. Jerry Wilson	Signed by: And
Mr. Mark Sullivan  Main Office: Reach Offices:	Anne Prouty Environmental Engineer
Main Office:  ☐ 275 Miller Ave.  Mill Valley, CA 94941  Santa Rosa CA 95401  New Co.	

Santa Rosa, CA 95401 (707) 523-3880

(415) 383-7740

□ 1541 Third St. Napa, CA 94559 (707) 224-5411

□ 110 Gough St. Suite 403-A San Francisco, CA 94102 (415) 863-0566

☐ 290 North Main Lakeport, CA 95453 (707) 279-0736

Multi-Tech
laboratories. Inc.

320 TESCONI CIRCLE, SUITE R · SANTA ROSA, CA 95401 · (707) 544-5570

7-30-86

Sonoma County Office of Education c/o Donald Herzog and Associates 3000 Cleveland Avenue Santa Rosa, CA 95401

SAMPLE NUMBER:

6-8164

Date collected: 7-28-86
Date in lab: 7-29-86
Collected by: Client
Sample type: Soil

Client's ID:

Center (Gas) 10.5 ft, Station #9

Project: 5075-7-3-2, Cloverdale Unified H.S.

Total Light Hydrocarbons, Group B, 800 mg/kg

Note: The above value is based on calibration with gasoline as a standard. The detector used is a flame ionization detector.

nalytical Director

jmt

Multi-Tech
Laboratories, Inc.

320 TESCONI CIRCLE, SUITE R · SANTA ROSA, CA 95401 · (707) 544-5570

7-30-86

Sonoma County Office of Education c/o Donald Herzog and Associates 3000 Cleveland Avenue Santa Rosa, CA 95401

SAMPLE NUMBER:

6-8166

Date collected: 7-28-86
Date in lab: 7-29-86
Collected by: Client
Sample type: Soil

Client's ID:

5075-7-3-2, Cloverdale Unified H.S. East End Diesel 10.5', Station #8

Total Heavy Hydrocarbons, Group B, 31 mg/kg

Note: The above value is based on calibration with diesel fuel as a standard. The detector used is a flame ionization detector.

Analytical Director

jmt



RECEIVED

7-30-86

411G 1 1986

Sonoma County Office of Education c/o Donald Herzog and Associates 3000 Cleveland Avenue Santa Rosa, CA 95401

SAMPLE NUMBER:

6-8165

Date collected: 7-28-86
Date in lab: 7-29-86
Collected by: Client
Sample type: Soil

Client's ID:

5075-7-3-2, Cloverdale Unified H.S.

West End Diesel 10', Station #7

Total Heavy Hydrocarbons, Group B, <10 mg/kg

Note: The above value is based on calibration with diesel fuel as a standard. The detector used is a flame ionization detector.

Analytica/ Director

jmt

Multi-Tech
Laboratories, Inc.

320 TESCONI CIRCLE, SUITE R • SANTA ROSA, CA 95401 • (707) 544-5570

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Relinquishe	ed by (Sig	gnature)			Date	Time	Receive	d by (Sigi	nature)		TOTAL	. TIME	Ĭ.		F	EES/H	OUR/MILE			Į.		
						- 1	MILEAGE															

, 		
-	UNDERGROUND STORAGE TANK UNAUTHORIZI	ED RELEASE (LEAK)/CONTAMINATION SITE REPORT
	ERGENCY HAS STATE OFFICE OF EMERGENCY SERVICES YES X NO REPORT BEEN FILED? YES X NO	STATE TANK ID' #"
١.,	PORT DATE LOCAL CASE #	REGIONAL BOARD CASE # 'US EPA ID #
. 8≺	Bill C. Wiggins (707) 5	33-3880 SIGNATURE
ORTED	OWNER/OPERATOR REGIONAL BOARD	COMPANY OR AGENCY NAME Donald Herzog & Associates, Inc.
R PEP	3000 STREET Cleveland Avenue	CITY Santa Rosa STATE CA ZIP9540
PARTY	NAME,. Cloverdale Unified School Dist. UNKNOWN	Mr. Doug Dorman PHONE, (707 ) 894-2548
RESP BLE	ADDRESS 97 STREET School Street FACILITY,NAME (IF APPLICABLE)	CITY Cloverdale. STATE CA ZIP9542
N 0 F	Cloverdale High School	Mr. Doug Dorman (707) 894-2548
LOCA	97 STREET School Street	CITY Cloverdale COUNTYSONOMA ZIP954
SITE		OTHER UNKNOWN X OTHER School
TING ES .	Sonoma Co. Environmental Health	CONTACT PERSON PHONE  Mark Sullivan (707 ) 527-2891
LEMEN	North Coast	Lois Rivera ( 707 ) 576-2220
S W	CAS # (ATTACH EXTRA SHEET IF NEEDED) NAME	( ) QUANTITY LOST (GALLONS)
TANCE OLVED	(i)   NAME	Gasoline
SUBS		UNKNO
ERY/ ENT	OM 7M 1D 7D 8 Y 6 Y ROUTINE MONITORING X	TANK CO
DISCOVERY/ ABATEMENT	HAS DISCHARGE BEEN STOPPED?	REMOVE CONTENTS REPLACE TANK CLOSE TANK REPAIR TANK REPAIR PIPING CHANGE PROCEDURES
JSE	X YES   NO IF YES, DATE   OM 7M   10 70 8 4 6 4 5 5 5 5 5 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6	OVERFILL CORROSION
CE/CAUS	PIPING LEAK MATERIAL	YRS. X UNKNOWN
SOURCE/	OTHER (SPECIFY) OTHER	X UNKNOWN OTHER
RESOURCES AFFECTED/ AT RISK	RESOURCES AFFECTED.  YES NO THREATENED  AIR (VAPOR)  SOIL (VADOSE ZONE)  GROUNDWATER  SURFACE WATER OR STORM DRAIN  BUILDING OR UTILITY VAULT  OTHER (SPECIFY)	WATER SUPPLIES AFFECTED THREAT- UN- # OF ENED KNOWN WELL YES NO ENED KNOWN WELL YES NOW WELL YES NOW WELL YES NOW WELL YES NO ENED KNOWN WELL YES NOW WELL YES NO
ж Ш	GROUNDWATER BASIN NAME Dry Creek Valley	]иикиоwи
ENTS	COMVENTS:	
COMME	COMPLETE AND ATTACH A CLEANUP TRACKING REPORT IF ANY	Y CLEANUP WORK OR PLANNING HAS STARTED HSC 05 (10/85)

			·	
<u> </u>	UNDERGROUND STORAGE TANK UNAUTHORIZ		CONTAMINAT	TION SITE REPORT
EMI	ERGENCY HAS STATE OFFICE OF EMERGENCY SERVICES YES X NO REPORT BEEN FILED? YES X NO			r _{a.}
RE	PORT DATE ' LOCAL' CASE #	REGIONAL'BOARD CASE #	US	EPA ID#
· N	M D D Y Y NAME OF INDIVIDUAL FILING REPORT PHONE	in SIGN	ATURE *	
<u>}</u>	Bill C. Wiggins (707)			
ED I	REPRESENTING LOCAL AGENCY OTHER	COMPANY OR AGENCY NAM		
TAO	X OWNER/OPERATOR REGIONALLBOARD	Donald Herzog	& Associate	s, Inc.
REP	ADDRESS Clayeland Avenue			
1 >	STREET Cleveland Avenue	CONTACT PERSON *	, a ,	PHONE CA ZIP95404
ART	Cloverdale Unified School Digg. UNKNOWN	Mr. Doug Dorman		(707) 894-2548
ESP(	ADDRESS	7.	** ** ** ** **	* * * * * * * * * * * * * * * * * * * *
<u> </u>	97 STREET SChool	CITY Cloverd	ale: · ··,	STATE CA ZIP 95425
Z	Cloverdale High School	Mr. Doug Dorman	:. ·	(3707) 894-2548
ATIC	ADDRESS	Till Dodg Dollman		(407 / 054 2540
Loc	97 street School Street		dale - /	COUNTY Sonoma ZIP 95425
11.	CROSS STREET '.' TYPE OF AREA COMMERCI			SS RETAIL FUEL STATION
	LOCAL AGENCY AGENCY NAME			Y OTHER SCHOOL
υ N	Sonoma Co. Environmental Health	Mark Sullivan		(1707 ) 527 <b>–</b> 2891
NTI	REGIONAL BOARD	1 1		
EME GEN(	North Coast	Lois Rivera *		( 707 ) 576-2220
M A Pι	TSCD 43			( )
CES	CAS # (ATTACH EXTRA SHEET IF NEEDED) NAME			QUANTITY LOST (GALLONS)
TAN	(1)	¿ Diesel:'"	<u>-,                                    </u>	UNKNOWN
SUBS		$F_{\frac{1}{2}}$	The same of the sa	
	DATE DISCOVERED HOW DISCOVERED INVE	· · · · · · · · · · · · · · · · ·	· .	NITORING
RY/.		AJ. REMOVAL	· · · · · · · · · · · · · · · · · · ·	OTHER
DISCOVERY/ ABATEMENT	DATE DISCHARGE BEGAN	METHOD USED TO STOP DIS	,	
Δ.A.				TANK   CLOSE TANK 😘 !
50	HAS DISCHARGE BEEN STOPPED?	REPAIR TANK		TANK CLOSE, TANK
A B.		4 <i></i> 7 ' ' .	PAIR PIPING	
bil	HAS DISCHARGE BEEN STOPPED?	REPAIR TANK RE	PAIR PIPING	CHANGE PROCEDURES
CAUSE	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M 1D 7D 8Y 6  SOURCE(S) OF DISCHARGE  TANK LEAK  WATERIAL	REPAIR TANK RE	PAIR PIPING emova1 GAL CAUSE(S)	CHANGE PROCEDURES
bil	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M 1D 7D 8 SOURCE(S) OF DISCHARGE  TANK LEAK  TANK LEAK  TANK LEAK	REPAIR TANK REPAIR	PAIR PIPING emoval	CHANGE PROCEDURES
EŽCAUSE	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M 1D 7D 8 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	REPAIR TANK RE	PAIR PIPING emova1 GAL CAUSE(S)	CHANGE PROCEDURES  CORROSION  E/FAILURE SPILL
, source/cause	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M OD 7D BY 6  SOURCE(S) OF DISCHARGE  TANK LEAK  WATERIAL  PIPING LEAK  TANK SONLY/CA  AGE  MATERIAL  X STEEL	REPAIR TANK RE	PAIR PIPING PAIR PIPING CAUSE(S) OVERFIL RUPTUR X UNKNOW	CHANGE PROCEDURES  CORROSION  F/FAILURE SPILL  OTHER  THREAT- UN- # OF
, source/cause	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M 1D 7D 8Y 6  SOURCE(S) OF DISCHARGE  TANK LEAK  WINKNOWN  AGE  MATERIAL  OTHER (SPECIFY)  DESCRIPTION	REPAIR TANK REPAIR	PPLIES AFFECTED	CHANGE PROCEDURES  L CORROSION  E/FAILURE SPILL  N OTHER
SOURCE/CAUSE	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M OD 7D ON ON ONLY/CA  SOURCE(S).OF DISCHARGE  TANKS ONLY/CA  AGE  MATERIAL  STEEL  OTHER (SPECIFY)  RESOURCES AFFECTED  AIR (VAPOR)  SOIL (VADOSE ZONE)	REPAIR TANK RE  X OTHER TANK RE  PACITY 1000  YRS. X UNKNOWN  FIBERGLASS  UNKNOWN WATER SUF  WATER SUF  WATER PUBLIC DRI WATER  WATER PRIVATE DRI	PAIR PIPING PMOVAL  GAL CAUSE(S)  OVERFIL  RUPTUR  WALLEN AFFECTER  YES  INKING	CHANGE PROCEDURES  CORROSION  E/FAILURE SPILL  OTHER  THREAT- UN- # OF NO ENED KNOWN WELLS
SOURCE/CAUSE	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M OD 7D OD	REPAIR TANK REPAIR	PAIR PIPING PMOVA1  GAL CAUSE(S) OVERFIL  RUPTUR  W UNKNOW PPLIES AFFECTED YES INKING RINKING	CHANGE PROCEDURES  CORROSION  E/FAILURE SPILL  OTHER  THREAT- UN- # OF  NO ENED KNOWN WELLS  X
SOURCE/CAUSE	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M 1D 7D 8Y 6  SOURCE(S) OF DISCHARGE  TANKS ONLY/CA  AGE  MATERIAL  YSTEEL  OTHER (SPECIFY)  AIR (VAPOR)  SOIL (VADOSE ZONE)  GROUNDWATER  SURFACE WATER OR STORM DRAIN X BUILDING OR UTILITY VAULT:	REPAIR TANK RE X OTHER TANK RE PACITY 1000  YRS. X UNKNOWN  FIBERGLASS  UNKNOWN WATER SUF WATER  WATER  PRIVATE DI WATER	PAIR PIPING PMOVA1  GAL CAUSE(S) OVERFIL  RUPTUR  UNKNOW  PPLIES AFFECTED YES INKING RINKING	CHANGE PROCEDURES  CORROSION  E/FAILURE SPILL  N OTHER  NO ENED KNOWN WELLS  X
ESOURCES AFFECTED/ SOURCE/CAUSE	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M OD 7D ON SOURCE(S). OF DISCHARGE  TANK LEAK WINKNOWN.  AGE MATERIAL  OTHER (SPECIFY)  RESOURCES AFFECTED  AIR (VAPOR)  SOIL (VADOSE ZONE)  GROUNDWATER  SURFACE WATER OR STORM DRAIN  BUILDING, OR UTILITY VAULT:  OTHER (SPECIFY)	REPAIR TANK RE  XOTHER TANK RE  TANK RE	PAIR PIPING PMOVA1  GAL CAUSE(S) OVERFIL  RUPTUR  RUPTUR  RUNKNOW  PPLIES AFFECTED YES INKING RINKING	CHANGE PROCEDURES  CORROSION  E/FAILURE SPILL  OTHER  THREAT- UN- # OF NO ENED KNOWN WELLS  X
SOURCES AFFECTED/ SOURCE/CAUSE AT RISK	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M 1D 7D 8Y 6  SOURCE(S) OF DISCHARGE  TANKS ONLY/CA  AGE  MATERIAL  YSTEEL  OTHER (SPECIFY)  AIR (VAPOR)  SOIL (VADOSE ZONE)  GROUNDWATER  SURFACE WATER OR STORM DRAIN X BUILDING OR UTILITY VAULT:	REPAIR TANK RE XOTHER TANK RE TANK RE TANK RE PACITY 1000  YRS. X UNKNOWN  FIBERGLASS  UNKNOWN WATER SUF WATER WATER WATER INDUSTRIAL AGRICULTU	PAIR PIPING PMOVA1  GAL CAUSE(S) OVERFIL  RUPTUR  RUPTUR  RUNKNOW  PPLIES AFFECTED YES INKING RINKING	CHANGE PROCEDURES  CORROSION  E/FAILURE SPILL  N OTHER  NO ENED KNOWN WELLS  X
RESOURCES AFFECTED/ SOURCE/CAUSE AT RISK	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M OD 7D OV ON SOURCE(S). OF DISCHARGE  TANK LEAK WINKNOWN.  AGE MATERIAL  OTHER (SPECIFY)  RESOURCES AFFECTED  AIR (VAPOR)  SOIL (VADOSE ZONE)  GROUNDWATER  SURFACE WATER OR STORM DRAIN  BUILDING, OR UTILITY VAULT:  OTHER (SPECIFY)  GROUNDWATER BASIN NAME	REPAIR TANK RE	EPAIR PIPING EMOVA1  GAL CAUSE(S) OVERFIL  RUPTUR  QUNKNOW PLIES AFFECTED YES INKING RINKING RINKING CIFY)	CHANGE PROCEDURES  CORROSION  E/FAILURE SPILL  N OTHER  NO ENED KNOWN WELLS  X
RESOURCES AFFECTED/ SOURCE/CAUSE AT RISK	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M 1D 7D 8Y 6  SOURCE(S) OF DISCHARGE  TANKS ONLY/CA  AGE  MATERIAL  YSTEEL  OTHER (SPECIFY)  AIR (VAPOR)  SOIL (VADOSE ZONE)  GROUNDWATER  SURFACE WATER OR STORM DRAIN  BUILDING, OR UTILITY VAULT:  OTHER (SPECIFY)  GROUNDWATER BASIN NAME  Dry Creek Valley	REPAIR TANK RE	EPAIR PIPING EMOVA1  GAL CAUSE(S) OVERFIL  RUPTUR  QUNKNOW PLIES AFFECTED YES INKING RINKING RINKING CIFY)	CHANGE PROCEDURES  L CORROSION  E/FAILURE SPILL  N OTHER  NO ENED KNOWN WELLS  X  X
ESOURCES AFFECTED/ SOURCE/CAUSE	HAS DISCHARGE BEEN STOPPED?  YES NO IF YES, DATE OM 7M 1D 7D 8Y 6  SOURCE(S) OF DISCHARGE  TANKS ONLY/CA  AGE  MATERIAL  YSTEEL  OTHER (SPECIFY)  AIR (VAPOR)  SOIL (VADOSE ZONE)  GROUNDWATER  SURFACE WATER OR STORM DRAIN  BUILDING, OR UTILITY VAULT:  OTHER (SPECIFY)  GROUNDWATER BASIN NAME  Dry Creek Valley	REPAIR TANK RE	EPAIR PIPING EMOVA1  GAL CAUSE(S) OVERFIL  RUPTUR  QUNKNOW PLIES AFFECTED YES INKING RINKING RINKING CIFY)	CHANGE PROCEDURES  L CORROSION  E/FAILURE SPILL  N OTHER  NO ENED KNOWN WELLS  X  X

;	UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK)/CONTAMINATION SITE REPORT
EME	RGENCY HAS STATE OFFICE OF EMERGENCY SERVICES.  YES X NO REPORT BEEN FILED? YES X NO     "
REF	ORT DATE LOCAL CASE # REGIONAL BOARD CASE # US EPA ID #
0 M	2 M   Op   3p   8   7 y   n/a   n/a   n/a   signaz Vre
}	Anne Prouty (707) 523-3880
Ë	REPRESENTING LOCAL AGENCY OTHER . COMPANY OR AGENCY NAME .
POR	w owner/operator : REGIONAL BOARD   Donald Herzog, and Associates, Inc.
RE	3000 Cleveland Avenue Santa Rosa California 95401 STATE STAT
NSI-	NAME CONTACT PERSON PHONE Cloverdale Unified School UNKNOWN Doug Dorman (707)894-2548
SPO E P/	
RE	97 School Street Cloverdale California 95425
z	Cloverdale High School Doug Dorman Phone (707) 894-2548
AT10	ADDRESS
Lood Lood	509 N. Cloverdale—Street Cloverdale Sonoma 95425 ZIP
) T.E	CROSS STREET TYPE OF AREA COMMERCIAL INDUSTRIAL TYPE OF BUSINESS RETAIL FUEL STATION
, ,,	LOCAL AGENCY AGENCY NAME CONTACT PERSON PHONE
υ N	
CIES	REGIONAL BOARD
A ME	Regional Water Quality Control Brd. Mark Harvey (707) 576-2220
IM P	
М _	CAS # (ATTACH EXTRA SHEET IF NEEDED) NAME QUANTITY LOST (GALLONS)
ANC	(n) DIESELI   X UNKNOW
NVOI	(2)   1
0,	DATE DISCOVERED HOW DISCOVERED SUBSURFACE MONITORING
RY/ LY	M 3M 2'D 0D 8 6 Y ROUTINE MONITORING X REMOVAL NUISANCE CONDITIONS OTHER
COVER	DATE DISCHARGE BEGAN    METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)    M
DISC	HAS DISCHARGE BEEN STOPPED?
_	XYES NO IFYES, DATE M M D D Y Y X OTHER tank removal
USE	SOURCE(S) OF DISCHARGE TANKS ONLY/CAPACITY 1000 GAL CAUSE(S)  TANK LEAK X UNKNOWN OVERFILL CORROSION
ν	AGE YRS UNKNOWN
RCE/	PIPING LEAK  RUPTURE/FAILURE SPILL  STEEL  FIBERGLASS
Sour	OTHER (SPECIFY) OTHER UNKNOWN OTHER
1/2	RESOURCES AFFECTED THREAT- UN- # OF YES NO THREATENED UNKNOWN WATER SUPPLIES AFFECTED THREAT- UN- # OF YES NO ENED KNOWN WELLS
AFFECTED/	AIR (VAPOR) PUBLIC DRINKING WATER WATER
FE	SOIL (VADOSE ZONE)
S AI	GROUNDWATER
RESOURCES AT RIS	BUILDING OR UTILITY VAULT TELES TO THE TELES
ESOL	OTHER (SPECIFY) OTHER (SPECIFY) \( \bigcap \)
æ	GROUNDWATER BASIN NAME UNKNOWN
	COMMENTS:
NTS	
COMMENTS	
8	COMPLETE AND ATTACH A CLEANUP TRACKING REPORT IF ANY CLEANUP WORK OR PLANNING HAS STARTED HSC 05 (10/85).
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	UNDERGROUND STORAGE TANK UNAUTHOR	IZED RELEAS	E (LEAK)/CO	NTAMINATI	ON SITE REPORT				
EME	RGENCY HAS STATE OFFICE OF EMERGENCY SERVICES YES X NO REPORT BEEN FILED? YES X NO	STATE TANK	D #:						
REF	PORT DATE . LOCAL CASE #	REGIONAL BOA	ARD CASE #	US EF	PA ID #				
0м	2 M 0 D 3 D 8Y 7 Y	٤.							
<b>∆</b> 8	NAME OF INDIVIDUAL FILING REPORT PHONE	523-3880	SIGNAT	WA.	, , , , ,				
0.	REPRESENTING   LOCAL AGENCY   OTHER		AGENCY NAME	7.	•				
PORTE	X OWNER/OPERATOR REGIONAL BOARD	Donald	Herzog a	nd Associ	ates, Inc.				
RE	3000 Cleveland Avenue S	anta Rosa	<u> </u>		95401 STATE ZIP				
ONSI-	NAME Cloverdale Unified School⊡ UNKNOWN	CONTACT PER			707 ) 894-2548				
RESP BLE F	97 School Street	Cloverd	lale .	, i, CA,	STATE 95425				
	FACILITY NAME (IF APPLICABLE)	, OPERATOR	7-1		PHONE				
Ŏ.	Cloverdale High School	Doug Do	rman	(	707 ) 894-2548				
OO AT	509 N. Cloverdale Street	Clo	verdale	Sc	noma 95425				
TE I	CROSS STREET . TYPE-OF AREA COMMER	CIAL INDUST	RIAL TY	PE OF BUSINESS	RETAIL FUEL STATION				
SI	X RESIDENTIAL TRURAL	OTHER		UNKNOWN X	OTHER School				
٠,	LOCAL AGENCY AGENCY NAME	CONTACT PE	RSON		PHONE				
NTING	Sonoma County Public Health REGIONAL BOARD	Mark Su	llivan	<u> </u>	707 ) 527-2891				
EME	Regional Water Quality Control B	rd. Mark	Harvey		707)576-2220				
IMPL AC	TSCD		FEB -		( ).				
ES	CAS # (ATTACH EXTRA SHEET IF NEEDED) NA	ME	1EB ~	5.A.	QUANTITY LOST (GALLONS)				
ANC	(1)   G  A  S  O  L  I  N  E	· Plan	<u>,                                    </u>	``	X UNKNOW				
SUBST	(2)		ONEALTH DEPAR	<i>```</i> 	UNKNOW				
		VENTORY CONTRO	L Z	MASURFACE MON	IITORING				
7×7 1×1	OM 2 M 20 10 8Y 6 Y X ROUTINE MONITORING		TANK REMOVAL NUISANCE CONDITIONS OTHER  METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)  X REMOVE CONTENTS REPLACE TANK CLOSE TANK REPAIR TANK REPAIR PIPING CHANGE PROCEDURES						
OVE	DATE DISCHARGE BEGAN,  MI MI DI DI YI YI XI 'UNKNOWN	- I							
DISCOVERY ABATEMEN	M M D D Y Y W UNKNOWN	<del></del> ` .							
_ ₹	XYES NO IFYES, DATE   M M D D Y	OTHER	· · · · · · · · · · · · · · · · · · ·		-				
	SOURCE(S) OF DISCHARGE TANKS ONLY/	CAPACITY 350	) GA	L CAUSE(S)					
AUSI	TANK LEAK UNKNOWN	YRS. 🗍 UI	NKNOMN,	OVERFILL	CORROSION				
0/3	PIPING LEAK MATERIAL			, FURTURE	/FAILURE   SPILL				
SOURCE/C	STEEL		BERGLASS		, , , , , , , , , , , , , , , , , , , ,				
sou	OTHER (SPECIFY) OTHER		<u> </u>	UNKNOWN	OTHER				
_	RESOURCES AFFECTED YES NO THREATENE	ED UNKNOWN	· WATER SUPPL	IES'AFFECTED	THREAT- UN- # OF O ENED KNOWN WELLS				
FECTED/	AIR (VAPOR)	. 🔯	PUBLIC DRINK						
EC	SOIL (VADOSE ZONE)		PRIVATE DRIN	, .					
A X	GROUNDWATER '	X	WATER						
SOURCES AF AT RISK	SURFACE WATER OR STORM DRAIN		INDUSTRIAL						
URC AT	OTHER (SPECIFY)	Lxi Lxi	AGRICULTURA						
RESO	, L., L., L.,		OTHER (SPECI	「''. <u>」</u>					
α	GROUNDWATER, BASIN NAME	UNKNOWN							
<u></u>	COMMENTS.		• • • • • • • • • • • • • • • • • • • •		<del></del>				
TS				•	• ,				
OMMENT		•		•	•				
O M M	•	•	•		· , · '				
Ŭ	COMPLETE AND ATTACH A CLEANUP TRACKING REPORT IF	ANY CLÉANUP WOI	RK OR PLANNING	HAS STARTED	HSC 05 (10/85)				
L	<u> </u>								

# & ASS@IATES, INC. GEOTECHNICAL CONSULTANTS

Job No.: 5075.07-03-2

December 26, 1986 Date:

**Transmittal** 

To. Cloverdale Unified School	Regarding: SCOE Project
Attention: Mr. Doug Dorman	Tank Removal - Site 2
97 School Street	Cloverdale High School
Cloverdale, CA 95425	509 No. Cloverdale Blvd.
	Cloverdale, California
The Following	
1) Soil Analysis results and Sam	ple Chain of Custody
2) Uniform Hazardous Waste Manif	est (Disposal of Tank)
Transmitted for.	
Your use; please return them when you have fin	nished Your use and need not be returned
☐ Your review; please return them with your com	nments
Remarks.	
Please retain the attached in you	
Additional information will be pr	resented in a subsequent report.
If you have any questions, please	e call.
cc: Mr. Jerry Wilson	Signed by: Bull ways
Mr. Mark Sullivan	Bill C. WiggÆne Project Manager
Main Office: Branch Offices:	

☐ 275 Miller Ave. Mıll Valley, CA 94941 (415) 383-7740

☑ 3000 Cleveland Ave. Santa Rosa, CA 95401 (707) 523-3880

☐ 1541 Third St. Napa, CA 94559 (707) 224-5411

☐ 110 Gough St. Suite 403-A San Francisco, CA 94102 (415) 863-0566

☐ 290 North Main Lakeport, CA 95453 (707) 279-0736



320 TESCONI CIRCLE, SUITE R • SANTA ROSA, CA 95401 • (707) 544-5570

AUB TOBO

7-21-86

Sonoma County Office of Education 3000 Cleveland Avenue Santa Rosa, CA 95401

C/O Donald Herzog & Assoc.

SAMPLE NUMBER:

6-7661

Date collected: 7-17-86
Date in lab: 7-17-86
Collected by: Client
Sample type: Soil

Christin

Client's ID:

Center, Cloverdale, High, 5075.7-2-2

Total Light Hydrocarbons, Group B 880 mg/kg

Note: The above value is based on calibration with gasoline as a standard. The detector used is a flame ionization detector.

Analytical Director

ch

JUL 44 1986

SCHOMA JOBS FOR ME. AL CARE

-Tech aboratories. Inc.

320 TESCONI CIRCLE, SUITE R • SANTA ROSA CA 95401 • (707) 544-5570

7-21-86

Sonoma County Office of Education 3000 Cleveland Avenue Santa Rosa, CA 95407

C/O Donald Herzog & Assoc.

SAMPLE NUMBER:

6-7660

Date collected: Date in lab:

7-17-86 7-17-86

Collected by:

Client

Sample type:

Soi1

Client's ID:

East End, Cloverdale High, 5075.7-2-2

730 mg/kg Total/ Heavy Hydrocarbons, Group B/,

The above value is based on calibration with diesel fuel as a standard. The detector used is a flame ionization detector.

Director

ch

Property Control of the Control of t JUL 24 1986

Multi-Tech
Laboratories. Inc.

320 TESCONI CIRCLE, SUITE R • SANTA ROSA, CA 95401 • (707) 544-5570

AUG TUBBED

7-21-86

Sonoma County Office of Education 3000 Cleveland Avenue Santa Rosa, CA 95407

C/O Donald Herzog & Assoc.

SAMPLE NUMBER:

6-7659

Date collected: 7-17-86
Date in lab: 7-17-86

Collected by: Client

Sample type:

Soi1

Client's ID:

West End Cloverdale High 5075.7-2-2

Total Heavy Hydrocarbons, Group B 620 mg/kg

Note: The above value is based on calibration with diesel fuel as a standard. The detector used is a flame ionization detector.

ch

REDEWICE.

JIII 24 1986

SON THU WENT OF

Analytica// Director



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	s Name		<u>5</u> <u> </u>		76		-/0 /	1 Enz	0674	45	500		\$ /	N	-		Phone		3.	88	-
Addres	ss State, Zi	ın	<u>د</u> ۵	C.A	WI	A SI	160	P.A.		<del>51(</del>	11	5 <b>4</b>	O	<del>/</del>						<del></del>	
			s tulo		-11	in its	9m	1 gen	The	و الم	(da :			ή·		a street	y.	-		, 181	•
(signa	ture aut	thorizes	the	work	and të	rms list	ed below	() ( t t		i				15		THE STATE OF THE S	C. '	ί,		,	-
*Term	s Pay	ment i	s du	ie wı	thin 30	days	of invoid	ce A servio	e charg	ge of	1.5%	will	be a	adde	d to	overd	ne acco	ounts	ant fails	i, to nick	,
	sample mples	es rema	un u	ie pr	operty	or me	chent wi	no is respoi	ISIDIE IC	n _i uisi	JUSAI İkr	A U	hspc ;	sai i		ayue	i(iipose	u II CII	ent rans	to pick	
			, d.		I.		, <u>.</u> *			,	: (*)			14. 18	1	Sec					
PROJ <u>N</u>	90	PROJECT						(H/6H)	I		<b>)</b> ¹		K	34)				//		,	
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	3 Generator's Name and Malling Address  CLOVER DALE UNIFIED SCI	400L DIST	RICT	30 6 ' - V'	e Manifest Do 194688	46.8	it"Nûmber
	4. Generator's Phone ( 707) 841-2548	. CLOVER	DALE		e Generator;		
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	15 Special Handling Instructions and Additional Information						
16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.  Date							
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20 Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19							
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DHS 8022 A (11/84) YELLOW TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS (EPA 8700-22)							



W. J. HARRIS

TERMS: CASH

DATE August 19, 1986

OUR INVOICE NO. 886-99
OUR JOB NO. 3192
CUSTOMER'S REFERENCES
PO NO. 1588 (B4070)

JOB NO.

Petroleum Engineering 205 - 5th Street Santa Rosa, California 95401

Furnished necessary labor, material and equipment to pick up, clean and dispose of two (2) 1,000 Gals. and one (1) 500 Gals. Tanks as directed.

Work started 7/17/86, Cloverdale School, Cloverdale.

Work completed 7/30/86, Richmond, California.

Transportation (20 Hours \$65.00)

Disposal of Tanks (2-1,000 Gals. \$500.00)-5.2

(1-500 Gals. \$500.00)-5.27

Muck Out & Disposal of Dirt-5.27

Tolls

TOTAL INVOICE

\$1,300.00

1,000.00

\$30.00

\$3,080.00

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COUNTY OF SONOMA APPLICATION FOR PERMIT TO: APPLICATION FOR PUBLIC PUBLIC HEALTH DEPARTMENT HEALTH CLEARANCE FOR 3313 CHANATE RD. SANTA ROSA, CA 95404 PHONE 527-2711 **NEW/REPLACEMENT** REPAIR/MODIFY UNDERGROUND STORAGE TANK (includes leak detection) (includes product lines) OSURE Application is hereby made to the Sonoma County Health Officer for a permit This permit application must be signed on all 3 signature lines to construct, repair, or alter an underground storage tank in compliance by the same person (i.e., contractor or owner/builder). A with the code of Sonoma County or for clearance for other construction. letter of authorization from owner must accompany this application if agent is signing on owner's bahalf. APPLICANT: Please press hard (use black ink). Fill in between PERMIT NO. DATE ISSUED heavy lines only. CLOUFRDACE FACILITY ADDRESS OWNER'S NAME. FACILITY NAME (if applicable) CLOVEILDACE UNIF SCHOOLMAILING ADDRESS PHONE 891 NEAREST CROSS STREET CITY ASSESSOR'S PARCEL NO. OPERATOR'S NAME (if different from above) CITY GOVERDACE ZIP FIRE DISTRICT MAILING ADDRESS -CONTRACTOR SONOMA COUNTY PHONE FUBLIC HEALTH PHONE 545-0360 ADDRESS : TERMS OF PERMIT APPLICANT AGREES THAT: Health Department Sanitarian will be notified a minimum of 48 hours prior to commencing work. Health Department Sanitarian inspection will be obtained prior to covering the work. Any deviation from approved plan without prior approval of the Health Officer will be cause for stopping work until the changes are fully justified and approved. This permit is subject to revocation if found to be in nonconformance with Sonoma County Code or standards of the Public Health Department. 🖾 Additional Items: 401363P It is understood that the issuance of a permit in no way indicates that a guarantee of perfect and indefinite operation is made by the County 117.00 of Sonoma Public Health Department. 117.00 TTLAMT I hereby acknowledge that I have read this application and state that the above is correct and agree to comply with all County ordinances and 117.00 CHECKS State laws regulating underground storage tanks. This permit shall expire by Limitation if work authorized is not commenced within 365 days. 0.00 CHANGE The undersigned applicant certifies as follows: 777 M CONTRACTOR'S LICENSE LAW CERTIFICATE (complete either A'or B) WORKMEN'S COMPENSATION CERTIFICATE (1. or 2. must be completed). I. A currently effective certificate of Workmen's Compensation A. The applicant is licensed under the provisions of the Contractors, License Law under License Number which License is in full force Health Department. Compensation Insurance and effect Policy # is currently in force: 7 B. The applicant is exempt from the provisions of the / / 2. I certify that in the performance of the work for which this Contractors License Law for the following reasons: permit is issued I shall not employ any person in any manner// Owner/Builder so as to become subject to the workmen's compensation laws 2) Other (explain) of California. DATE CONSTRUCTION APPROVED BY -16-86 PLAN APPROVED BY DATE WHEN APPROVED THIS IS YOUR PERMIT. FOR OFFICE USE: FÉE STATE SURCHARGE TOTAL FEE

(page | of |)

(revised 12/85)

Site:

Site 2, Cloverdale Unified School

District:

Cloverdale Unified School District ( Lith School > 2+unks

Site Location:

50.9 N. Cloverdale Boulevard

Cloverdale, California

#### Scope:

- Remove two tanks.
- Remove 50 feet of underground wiring.
- Remove all tank appurtenances.
- Return site to its original District Representative's Requirements as we outlined at the site walk.

#### Existing Conditions:

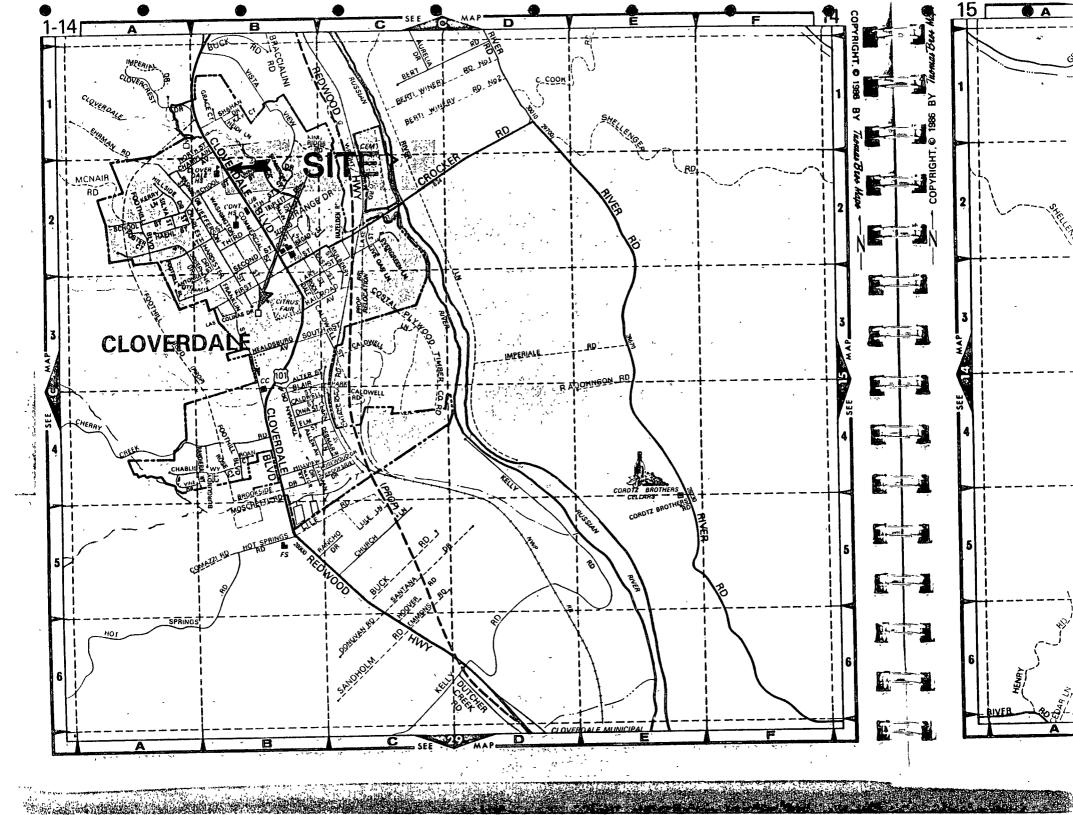
- l. Tanks volume -- Tank 1 - 350 gallons Tank, 2 - 1,000 gallons
- Product stored -Tank 1 - gasoline Tank 2 - diesel
- Tanks construction steel.
- 4. Depth to bottom of tank Tank 1 75.5 inches Tank 2 78.5 inches
- Access to the tanks clear.
- Cover above the tank asphalt and concrete.

#### Scheduling Requirements:

Work must be completed prior to September I,

#### Additional Information Attached:

- Thomas Brothers Location Map.



SITE PLAN CLOVERDALE UNIFIED SCHOOL DISTRICT 97 SCHOOL STREET CLOVERDALE, CALIFORNIA 95425 High School UNDERGROUND TANKS AND PUMP STATIONS: 1-3509 el gan 1-1,000 gal dient BUS BARN PARKING LOT (ASPHALT) BGYMNASIUM W W. CCASS ROOM CLASSROOM (f) 894-2548 DISTRICT OFFICE CONTACT: DOUG DORMAN DIRECTOR OF ADMIN. SERVICES LIBRARY GYMNASIUM HIGH SCHOOL OFFICE 894-2538

Herzog Associates
Geoscientists

3000 Cleveland Avenue, Suite 200 Santa Rosa, California 95403 Tel (707) 523-3880 Fax (707) 523-3904 Rwais lead. Wy

March 14, 1989 Job No. 15198.1-0-7

Cloverdale Unified School District Attention: Mr. James D. McAuley, Interim Superintendent 97 School Street Cloverdale, California 95425

BECEIVED

HATSTOCUS MATERIALS

RE: Addition to Work Plan

Soil Sampling and Analysis for

Investigation of Hydrocarbon Compounds

→ Cloverdale High School

Washington Street Elementary School Cloverdale, California

Dear Mr. McAuley:

As we discussed on March 8, we will provide a copy of the February 22, 1989 Work Plan to the Regional Water Quality Control Board (RWQCB) and to the Sonoma County Hazardous Materials Management Program (Hazmat) for their review. Also as we discussed, we have prepared this additional scope of work to evaluate the presence of hydrocarbon compounds in the spoils removed from the tank pits. We will also forward a copy of this addition to the Work Plan to the above noted regulatory agencies.

#### HISTORY

We understand that at the time the tanks were removed at the above referenced schools, soils containing hydrocarbon compounds were spread out at the respective sites to allow for biodegradation and volatilization of the hydrocarbon compounds detected in the soils. Previous testing reported 620 and 730 parts per million (ppm) of heavy hydrocarbons and 880 ppm of light hydrocarbons in soil samples from below the tanks at the high school site and 16,000 ppb of light hydrocarbons in water from the tank excavation at the elementary school site.

#### SAMPLING AND TESTING

In addition to the sampling and testing procedures outlined in the work plan dated February 22, 1989, Herzog Associates will take four soil samples from each 50 cubic yards of aerating soil in each of the soil piles. Each of the groups of four samples will be composited and analyzed for total petroleum hydrocarbons (TPH) as gasoline and diesel, and for benzene, toluene, xylene, and ethylbenzene (BTXE). The purge and trap method will be used for sample preparation. The samples will also be analyzed for heavy metals (cadmium, chromium, lead, and zinc) and organic

Cloverdale High School Job Number 15198.1-0-7 Page 2 - March 14, 1989

lead. Herzog will compile the data from the field program and prepare a project report, a copy of which we recommend you send to the RWQCB.

A cost estimate and Technical Services Agreement (TSA) for the above described work are attached to this Work Plan addendum. Our work will be performed in accordance with the TSA provided that we receive authorization within 30 days. Once the regulatory agencies have approved the Work Plan and we have received written authorization from the School District, we can proceed with the work.

Please sign one copy of the TSA and mail it back to confirm your authorization. We anticipate doing this additional scope of work in conjunction with the scope of work described in the February 22, 1989 Work Plan.

We look forward to hearing from you soon. We thank you for the opportunity to be of service. If you have questions regarding this Work Plan, please call.

Yours very truly,

HERZOG ASSOCIATES Environmental Services Division

Marc W. Seeley, Division Manager

Certified Engineering Geologist - 1014

RMP:MWS:FM:dec:clm (7304.1)

Attachment: Technical Services Agreement (3 copies)

cc: Ed Hoylman

Ralph Pattison

Jenny Cummings, Regional Water Quality Control Board

Jack Lee, Hazmat

☐ .275 Miller Avenue

Mill Valley, CA 94941

Tel (415) 383-7740

Fax (415) 383-1821

X 3000 Cleveland Ave , Suite 200

Santa Rosa, CA 95043

Tel (707) 523-3880

Fax (707) 523-3904

## RECEIVED

MAR 0 9 1989

#### HAZARDOUS MATERIALS



To	Jack Lee	Date: March 8, 1989
·	Sonoma County Department of Environmenta 2435 Professional Drive Santa Rosa, CA 95403	al Health Project No 15198.1–0–7
	·	Project Name Cloverdale Unified School District
Re	Work Plan	
	Description:	
	Copy of work plan attached.	•
•	·	
Transmitted for	<ul> <li>☐ Your use, please return them when you have finished</li> <li>☐ Your review, please return them with your comments</li> </ul>	
o.	<ul><li>☐ Your use and need not be returned</li><li>☐ Other</li></ul>	
-	· .	
÷ .	Remarks:	
Signed	Marc W. Seeley	^{CC} File James D. McAuley

☐ 1001 Second Street, Suite 345

Napa, CA 94559

Tel (707) 224-5411

☐ 1435 River Park Dr , Suite 406

Sacramento, CA 95815

Tel (916) 924-3293

Fax (916) 924-0253

☐ 604 Mission Street, Suite 901

San Francisco, CA 94105

Tel (415) 543-5943

February 22, 1989 Job No. 15198.1-0-7

Cloverdale Unified School District Attention: Mr. James D. McAuley Interim Superintendent 97 School Street Cloverdale, California 95425

RE: Work Plan

Monitoring Well Installation and Sampling

Cloverdale High School 509 cloverdale

Washington Street Elementary School 129 Wash.

Cloverdale, California

Dear Mr. McAuley:

In accordance with your request, Herzog Associates (Herzog) is pleased to submit this work plan for the investigation of potential subsurface soil and groundwater contamination at the subject sites. We have provided a proposal for the drilling and sampling of six exploratory borings, three at the Cloverdale High School site and three at the Washington Street Elementary School site. Each of these boreholes will be drilled 15 or more feet below the groundwater level and developed as a monitoring well. This plan should be submitted to the regulatory agencies (San Francisco Bay Area Regional Water Quality Control Board, RWQCB, and Sonoma County Department of Environmental Health) for approval.

#### History

We understand that two adjacent underground tanks were removed from the high school site on July 17, 1986 and one was removed from the elementary school site on July 28, 1986. Tank removal was performed by H&H Ship Service Company of San Francisco, California. At the time of removal, soil samples from the high school site and soil and water samples from the elementary school site were secured by Herzog Associates. These samples were then submitted to Multi-Tech Laboratories in Santa Rosa, California, for analysis of petroleum contamination.

The tests detected 620 and 730 parts per million of heavy hydrocarbons and 880 parts per million of liquid hydrocarbons in soil samples, from below tanks at the high school site, and 16,000 parts per million of light hydrocarbons in water from the tank excavation at the elementary school site.

The RWQCB is requiring additional investigation of soil and potential groundwater contamination at the two sites.

Cloverdale Unified School District Mr. James D. McAuley Job No. 15198.1-0-7 February 22, 1989 - Page 2

Included in Herzog's scope of work are preparing this work plan, preparing well permit applications, obtaining well permits, installing the wells and obtaining soil and water samples, chemical testing of selected samples, and preparing a report. If the three monitor wells at each site detect contamination, the RWQCB may subsequently require that additional wells be installed. These wells would be included in a future scope of work

## Boreholes and Monitoring Wells

Based on our past experience with this type of investigation, three boreholes at each site will be required. Each borehole will be developed as a monitoring well. The wells will be strategically located based on the assumed groundwater gradient. In accordance with the tri-region staff recommendations of the RWQCB, one well will be located within 10 feet of the former tanks on the down-gradient side. The groundwater gradient will be estimated from available published and unpublished geologic, geotechnical, and hydrologic information about the site vicinity, from client and property owner information, and from the lay of the land.

Briefly, our investigation approach will involve the following. We will drill six borings using a truck-mounted, hollow stem auger drill rig. The depth of these borings will vary depending on the level of contamination. All of the borings will be drilled to approximately 15 feet below the static groundwater table and developed as monitoring wells. Since the water table is expected to be relatively shallow at the site during wet winters, the wells will be screened to as high as possible without reducing the effectiveness of the seal.

### Sampling and Testing

Soil samples will be taken every five feet in the borings using a Modified California Sampler. Standard EPA, State, and County (as applicable) protocol will be used for sampling, borehole logging, equipment decontamination, well installation and development, and sample transport. Drilling spoils and retrieved groundwater will remain on site and will be covered with plastic sheeting or placed in drums, as appropriate. The new well will be purged and sampled at least 24 hours after installation and development.

The soil samples will be scanned with Herzog's gas chromatograph (GC) in order to choose samples to be quantitatively analyzed at a certified chemical testing laboratory. Analytical samples will be limited to about six soil samples and six groundwater samples.

Cloverdale Unified School District Mr. James D. McAuley Job No. 15198.1-0-7 February 22, 1989 - Page 3

The samples will be analyzed for total petroleum hydrocarbons (TPH) as gasoline and diesel, and for benzene, toluene, xylene, and ethylbenzene (BTXE). The purge and trap method will be used for sample preparation. The samples will also be analyzed for heavy metals (cadmium, chromium, lead, and zinc) and organic lead. Herzog will compile the data from the field program and prepare a final project report, a copy of which we recommend you send to the RWQCB.

A cost estimate and Technical Services Agreement (TSA) for the required work are attached to this work plan. Our work will be performed in accordance with the TSA, provided we receive authorization within 30 days. Once the regulatory agencies have approved the work plan, we can proceed with the work. Additional information will be required from the RWQCB prior to obtaining a permit for the monitoring wells. This information will be provided as part of the permit application process.

Please sign a copy of the TSA and mail it back to confirm your authorization. Work required by the project should be completed within six to eight weeks following receipt of written approval to begin.

We look forward to hearing from you soon, and we thank you for the opportunity to be os service. If you have questions regarding this work plan, please call.

Sancerely,

HERZOG ASSOCIATES, INC.

Ralph M. Pattison

Civil Engineer - 044130

Marc Seeley

Certified Engineering Geologist

Manager, Environmental Services Division

RP:cmc/S26-33

Attachments:

Schedule of Charges

General Conditions

UNDERGROUND STORAGE TANK LEAK REPORT - COUNTY OF SONOMA

REPORT DATE: / / DATE LEAK BEGAN: / / EMERGENCY: N (Y/N)

REPORTED BY: WIGGINS, BILL C.

3000 CLEVELAND AVENUE, SANTA ROSA, CA 95405 REPRESENTING: O (L=LOCAL AGENCY R=REG. BD. O=OWNER T=OTHER)

OWNER: CLOVERDALE UNIFIED SCHOOL DIST CONTACT: DORMAN, DOUG 97 SCHOOL STREET PHONE: (707)894-2548

CLOVERDALE , CA 95425

SITE: CLOVERDALE HIGH SCHOOL 97 SCHOOL STREET CONTACT: DORMAN, DOUG

PHONE: (707)894-2548

95425 CROSS ST: CLOVERDALE

TYPE OF AREA: R (C=COMMERCIAL I=IND R=RES U=RURAL T=OTHER)

LOCAL AGENCY: 49000 (SEE TABLE) REG. BOARD: 01 LEAD AGENCY:L ("L" OR "R")

SUBSTANCE REGULR GASOLINE QUANTITY: GALLONS

DATE DISCOVERED: 07/17/86 HOW DISCOVERED: :INVENTORY CNTRL :MON WELL :ROUTINE MON(EG, TANK TEST) X :TANK REMOVAL :NUISANCE :OTHER

HAS LEAK BEEN STOPPED? Y (Y/N) IF YES, DATE STOPPED: 07/17/86

:REMOVE CONTENTS :REPLACE TANK X :CLOSE TANK :REPAIR TANK METHOD:

USED :PEPAIR PIPE :CHANGE PROCEDURE :OTHER

SOURCE OF LEAK: TANK: PIPE: UNKNOWN:X OTHER:

TANK SIZE: 350 (GAL) AGE: (YRS) MATERIAL: ST (ST=STEEL FG=FIBER-

OT=OTHER GLASS

CAUSE: OVERFILL: CORROSION: STRU FAILURE: SPILL: UNK:X OTHER:

RESOURCES AFFECTED (Y=YES N=NO T=THREATENED U=UNKNOWN)

AIR: U SOIL: Y GROUNDWATER: U SURFACE WATER: U BUILDING OR UTILITY: U

WATER SUPPLIES AFFECTED (Y=YES N=NO T=THREATENED U=UNKNOWN)

PUBLIC: U NO. OF WELLS: 0 AGRICULTURAL: U NO. OF WELLS:

PRIVATE:U NO. OF WELLS: 0 OTHER: NO. OF WELLS: 0

INDUS.: U NO. OF WELLS: 0

GROUND WATER BASEN: CREEK VALLEY

COMMENTS:

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Peter Dadsmorth

Poler Dadsmorth

anne

Poler Dadsmorth

anne

Failing tank test > 350gal regular tank

Soil result > 770ppm

Need: additional

Little soil cample results to be submotted from (7-28-66)

20 2. Unanthorized release form - (2 tanks)

3. Work plan

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#### UNDERGROUND STORAGE TANK LEAK REPORT - COUNTY OF SONOMA

REPORT DATE: 02/03/87 DATE LEAK BEGAN: / / EMERGENCY: N (Y/N)

REPORTED BY: PROUTY, ANN

3000 CLEVELAND AVENUE, SANTA ROSA, CA 95401

REPRESENTING: O (L=LOCAL AGENCY R=REG. BD. O=OWNER T=OTHER)

OWNER: CLOVERDALE UNIFIED SCHOOL CONTACT: DOUG DORMAN

97 SCHOOL STREET PHONE: (707)894-2548

CLOVERDALE , CA 95425

SITE: CLOVERDATE HIGH SCHOOL CONTACT: DORMAN, DOUG

NORTH CLOVERDALE STR PHONE: (707)894-2548

CLOVERDALE 95425 CROSS ST:

TYPE OF AREA: R (C=COMMERCIAL I=IND R=RES U=RURAL T=OTHER)

LOCAL AGENCY: 49006 (SEE TABLE) REG. BOARD: 01 LEAD AGENCY: L ("L" OR "R")

SUBSTANCE REGULR GASOLINE QUANTITY: GALLONS

DATE DISCOVERED: 02/21/86 HOW DISCOVERED: :INVENTORY CNTRL :MON WELL

X : ROUTINE MON (EG, TANK TEST) : TANK REMOVAL : NUISANCE : OTHER

HAS LEAK BEEN STOPPED? Y (Y/N) IF YES, DATE STOPPED: //
METHOD: X :REMOVE CONTENTS :REPLACE TANK :CLOSE TANK :REPAIR TANK
USED :PEPAIR PIPE :CHANGE PROCEDURE :OTHER

SOURCE OF LEAK: TANK: PIPE:X UNKNOWN: OTHER:

TANK SIZE: 1000 (GAL) AGE: (YRS) MATERIAL: (ST=STEEL FG=FIBER-

OT=OTHER GLASS

CAUSE: OVERFILL: CORROSION:X STRU FAILURE: SPILL: UNK: OTHER:

RESOURCES AFFECTED (Y=YES N=NO T=THREATENED U=UNKNOWN) OTHER: U

AIR: U SOIL: Y GROUNDWATER:U SURFACE WATER: U BUILDING OR UTILITY: U

WATER SUPPLIES AFFECTED (Y=YES N=NO T=THREATENED U=UNKNOWN)

PUBLIC: U NO. OF WELLS: 0 AGRICULTURAL: N NO. OF WELLS: 0

PRIVATE:U NO. OF WELLS: 0
INDUS.: N NO. OF WELLS: 0 OTHER: N NO. OF WELLS: 0

GROUND WATER BASIN:

COMMENTS:

Reported 1/2/2

#### UNDERGROUND STORAGE TANK LEAK REPORT - COUNTY OF SONOMA

REPORT DATE: / / DATE LEAK BEGAN: / / EMERGENCY: N (Y/N)

REPORTED BY: WIGGINS, BILL C.

3000 CLEVELAND AVENUE, SANTA ROSA, CA 95404 REPRESENTING: O (L=LOCAL AGENCY R=REG. BD. O=OWNER T=OTHER)

OWNER: CLOVERDALE UNIFIED SCHOOL DIST CONTACT: DORMAN, DOUG

97 SCHOOL PHONE: (707)894-2548

CLOVERDALE , CA 95425

SITE: CLOVERDALE HIGH SCHOOL 97 SCHOOL STREET CONTACT: DORMAN, DOUG

PHONE: (707)894-2548

CLOVERDALE 95425 CROSS ST:

TYPE OF AREA: R (C=COMMERCIAL I=IND R=RES U=RURAL T=OTHER)

LOCAL AGENCY: 49000 (SEE TABLE) REG. BOARD: 01 LEAD AGENCY:L ("L" OR "R")

SUBSTANCE DIESEL QUANTITY: GALLONS

DATE DISCOVERED: 07/17/86 HOW DISCOVERED: :INVENTORY CNTRL :MON WELL

:ROUTINE MON(EG, TANK TEST) X :TANK REMOVAL :NUISANCE :OTHER

HAS LEAK BEEN STOPPED? Y (Y/N) IF YES, DATE STOPPED: 07/17/86

:REMOVE CONTENTS :REPLACE TANK X :CLOSE TANK :REPAIR TANK METHOD:

:PEPAIR PIPE USED :CHANGE PROCEDURE :OTHER

SOURCE OF LEAK: TANK: PIPE: UNKNOWN:X OTHER:

TANK SIZE: 1000 (GAL) AGE: (YRS) MATERIAL: ST (ST=STEEL FG=FIBER-

OT=OTHER GLASS

CAUSE: OVERFILL: CORROSION: STRU FAILURE: SPILL: UNK:X OTHER:

RESOURCES AFFECTED (Y=YES N=NO T=THREATENED U=UNKNOWN)

AIR: U SOIL: Y GROUNDWATER:U SURFACE WATER: N BUILDING OR UTILITY: U

WATER SUPPLIES AFFECTED (Y=YES N=NO T=THREATENED U=UNKNOWN)

PUBLIC: U NO. OF WELLS: 0 AGRICULTURAL: U NO. OF WELLS:

PRIVATE:U NO. OF WELLS: 0 NO. OF WELLS: 0 OTHER:

INDUS.: U NO. OF WELLS: 0

GROUND WATER BASEN: CREEK VALLEY

COMMENTS:

Reported 1/2/27



## SONOMA COUNTY PUBLIC HEALTH DEPARTMENT

3313 CHANATE ROAD SANTA ROSA, CALIFORNIA 95404

April 13, 1987



Ms. Anne Prouty, Environmental Engineer c/o Donald Herzog & Assoc., Inc. 3000 Cleveland Ave. Santa Rosa, CA 95401

Subject: Remedial Investigation Report for:

Cloverdale High School, 509 N. Cloverdale Blvd., Cloverdale Washington Elementary School, 129 S. Washington, Cloverdale

Dear Ms. Prouty:

Review of your workplan dated March 26, 1987, for the remedial actions of the above subject sites revealed additional concerns that need to be addressed.

#### Cloverdale High School

- Disposal of stockpiled soils.
- 2. At least three monitoring wells will be needed to accurately determine vertical/horizontal migration of the contaminants as well as groundwater gradient. Soil/water samples should be taken from the downgradient well. Monitoring well permits must be obtained from this office prior to the commencement of any work.

#### Washington Street School

- Disposal of stockpiled soils.
- Clarify if any perforations existed in the tank when removed. If none were observed, then monitoring wells will not be required and the site can be signed off.

Flease respond prior to April 24, 1987, indicating a time frame for the submittal of the above requested data. If further clarification is needed, please call the undersigned at 527-2711, Tuesday through Friday, between 7 and 9 a.m.

Very truly yours,

MARK J. SULLIVAN, R.S.

Hazardous Materials Sanitarian

MJS/11/closchs

Mark

cc: Doug Dorman, c/o Cloverdale Unified School Dist., 97 School, Cloverdale Mark Harvey, c/o NCRWQCB, 1440 Guerneville Rd., Santa Rosa

# DONALD HERZO & ASSOIATES, INC. GEOTECHNICAL CONSULTANTS

Job No.: 5075.07.00.2

Date: March 5, 1986

Transmittal

To: Cloverdale Unified School Dist.	Regarding: Underground Tank Testing
ATTN: Mr. Dan Zaffarno	Cloverdale Unified School Dist
509 N. Cloverdale Blvd.	Cloverdale, California
Cloverdale, CA 95425	
The Following Underground Tank Testing	
250 11 1	
Transmitted for:	
☐ Your use; please return them when you have finis	hed XX Your use and need not be returned
☐ Your review, please return them with your commo	ents   Other
Remarks:	
We transmit this report of work	performed by Mark Reano and Russel
Loewen of M.R.L. Underground Tank	k Testing, Inc. Mark Reano and
Russel Loewen are certified by Ho	orner Creative Metals, Inc. No
other warranties, either express	or implied, are given.
Mr. Jerry Wilson cc Sonoma Co. Office of Education	Signed by: Bell Wigg
Mr. Jack M. Lee Co. of Sonoma Public Health Serv Main Office: Branch Offices:	Bill Wiggins// Project Manager
☐ 275 Miller Ave. XX 3000 Cleveland Ave. ☐ 1541 Th Mill Valley, CA 94941 Santa Rosa, CA 95401 Napa, C (415) 383-7740 (707) 523-3880 (707) 22	CA 94559 Suite 403-A Lakeport, CA 95453

#### SEE BACK FOR DISCLAIMER.

	ame <u>Jordon</u>		•	Education	Tank Farm Location	. /	) CHURK
	40 Fi	•			Address 509 N	<i>y</i> •	L.
City, State	Santo	Roza,	ce 95401		City, State Clover	Jule, al	,
Telephone	(707)	527-25	75	<del></del>			
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City, State	S	ANTA ROSA,	CAL 95485		Telephone <u>(707) 546</u>		38-0291
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	350 gul	45"	- Regular		-0.0579 gibller		
•							
Remarks	Tanh #1	and ass	ociated pe	piny are ce	rtified tight account	ding to N.F. P. A	329 + 0.05 gall
Tanh	#7 and	associa	ted siping	showed lo	as of product in es	corr of N.F.P.A.	329 + 005 galle
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78 10-31 = 49 83 10-37 = 46 80 00 33 = 47

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233,00	liguid bevel	804 abou	e groud &	eva.								
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<u>!</u> !	78 - 68	= ~10	x 0.0005					=10.006		10.0027	=0.0067	17:00
<u> </u> 	68 - 60	= -8	× 0.0005	⊇0.oo4O						±0.0036	=000X1	17:15
1	60 - 51	= ~9	×.00005	= 0.0045		1 `		=10.008		±0.0031	= 6.0076	<b>-</b> 1
:	51 - 42	= -9	_x 0.0005_	=0.0045		l .		= +0.007			= 0,0076	
	42-34	= -8	× 0.0005	= 0.0040	-	I.				± 0.0036		
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ŧ	level start	level end	gain + Ioss -	x (A) x (A)	level result		temp. start	temp. end	gain + loss -	x (B) x (B)	temp. result	final result	time
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arass_____

& State Goverdale, al

Certified tight <u>Yes</u>

Leak rate per hour <u>-0.0140 941/hr 1630 rhru 2015</u>

Operator <u>MF/RL</u> Feb. 24.86

94 \$52 242 Blue 74 \$-32 = 42

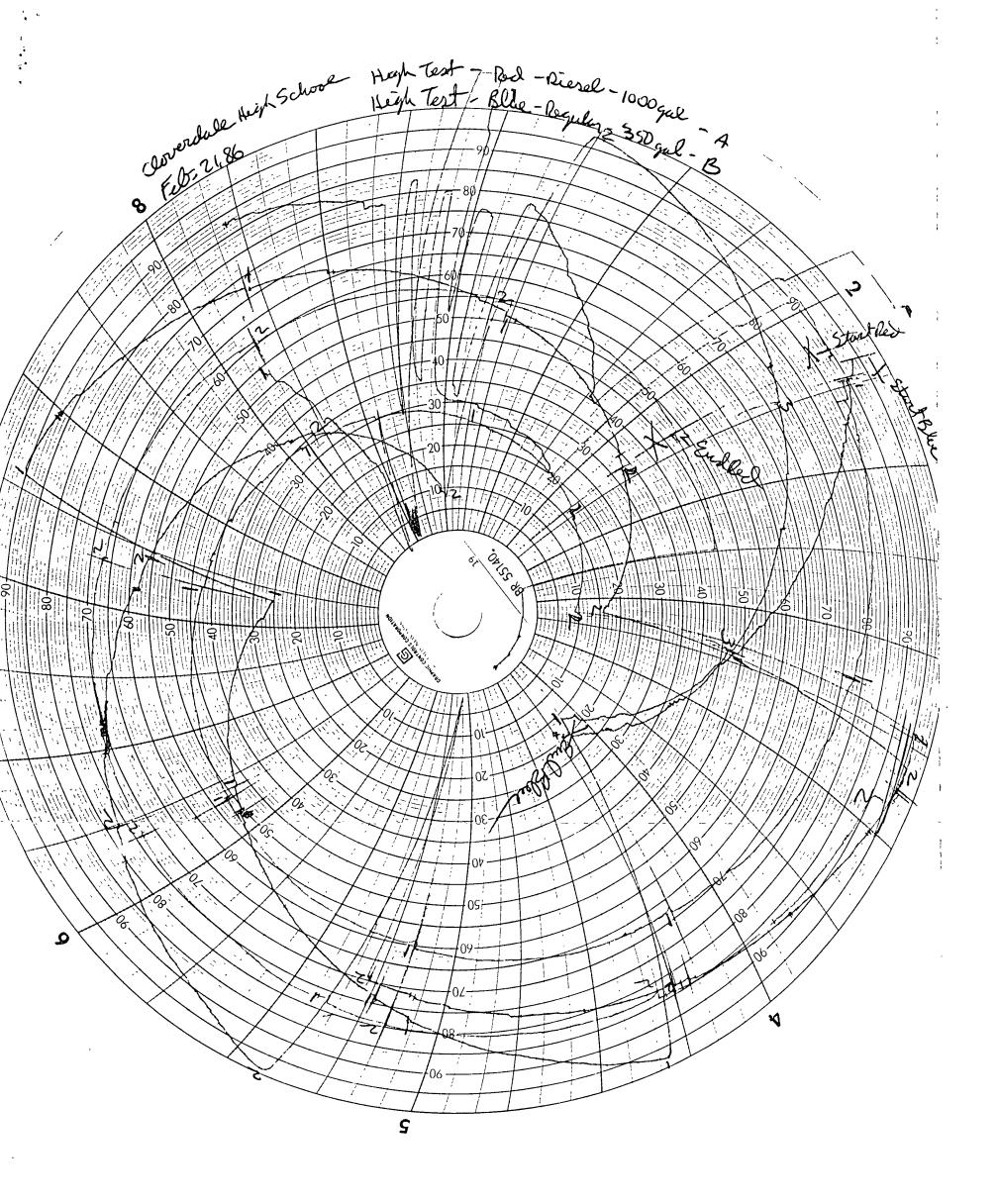
_Test level High Product Regular Capacity 350 gul Chart cal. 100 + 42 _Coefficient_0.00068___Temp. cal.__0.00068___x__350_ Measured gravity_ Jequis level 81" above ground level final temp. x (B) gain + temp. ; temp. level result time x (A) gain + result level x (B) .t level loss end start result x (A) 1617 loss end start 7/82-7185 = +0.003 × 0.238 = +0.0007 =0.0259 1632 × 0.0006 = 6.0252 =+0.007 × 0.238 =10.0016 =0.0708/647 7.185 -7.192 ×0.0006 =0 0192 7,192 -7,192 = 0 x 0.238 = 0 =00150 1702 × 0.0006 7/92 -7.204 \$0.012 × 0.238 \$0.0028 =0.0178 1717 =0.0150 × 0.000C =0.0161 = 0.010 × 0.238 \$00023 ×6.000€ =0.0138 7.214 - 7.222 =0.008 × 0.238. = 0.0019 =0.0127 1747 x 0.0006 = 0.0108 7.222 - 7.731 \$0.009 × 0.238 \$0.0021 ±0.0141 1802 ×0000€ = 6.010 7.231 - 7.232 =+0.001 x 0238 =+0.0002 = -20 × 0,0006 =0.0170 Average

exion location Cloursful legh School Total 75.5 509 North Cloverfele Block. Fellpipe 305 y. State Corrordele, Cal 1 water in touch

Certified tight NO Leak rate per hour 0.0579 9 4/hr excluding 1902 thru 1917 Operator MR/RL Feb. 2186

Blue B

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t level	level	gain + — loss –	x (A) x (A)	level result	, temp.	temp. end	gain + loss -	x (B) x (B)	temp. result	final result	time
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Toute removed 7/17 (770 ppin - additional Sampling to determine and of soil to removed of aerated

#### **MESSAGE**

то Д.К.				
DATE		гіме	. 🗆 AM	 □ PM
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Called to see you		Will call again		
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I no fees à	Int	(		-
97 School	<i>.'</i> '	Clarend	∵	
	•		7.00	1
RECEIVED BY . W.C.	/			<i>y</i>

talked to Mr Norman will Alid \$417.00





Scott Brown, District Superintendent Douglas Dorman, Director of Administrative Services

April 8, 1986

Mr. Jack Lee Sonoma County Public Health 3313 Chanate Road Santa Rosa, California 95404

RE: Underground Storage Tanks

Dear Jack:

This letter to inform you of the steps that are being taken by the Cloverdale Unified School District in response to the new state guidelines relative to underground storage tanks. Permits for both of our tanks have been applied and paid for. On February 21, 1986, our tanks were tested. The 1,000 gallon diesel tank was a non-leaker and our 350 gallon gasoline tank was a leaker. On March 20, 1986, the gasoline tank was pumped dry and sealed. It will not be used for any further storage of gasoline.

On April 3, 1986, we retained the consultant services of Bill Wiggins of Herzog & Associates, Inc. to develop both a plot plan and written response plan.

Thank you for meeting with me on January 7, 1986, and your comments on March 15, 1986, at the Sonoma County Office of Education.

Sincerely,

Doug Dorman

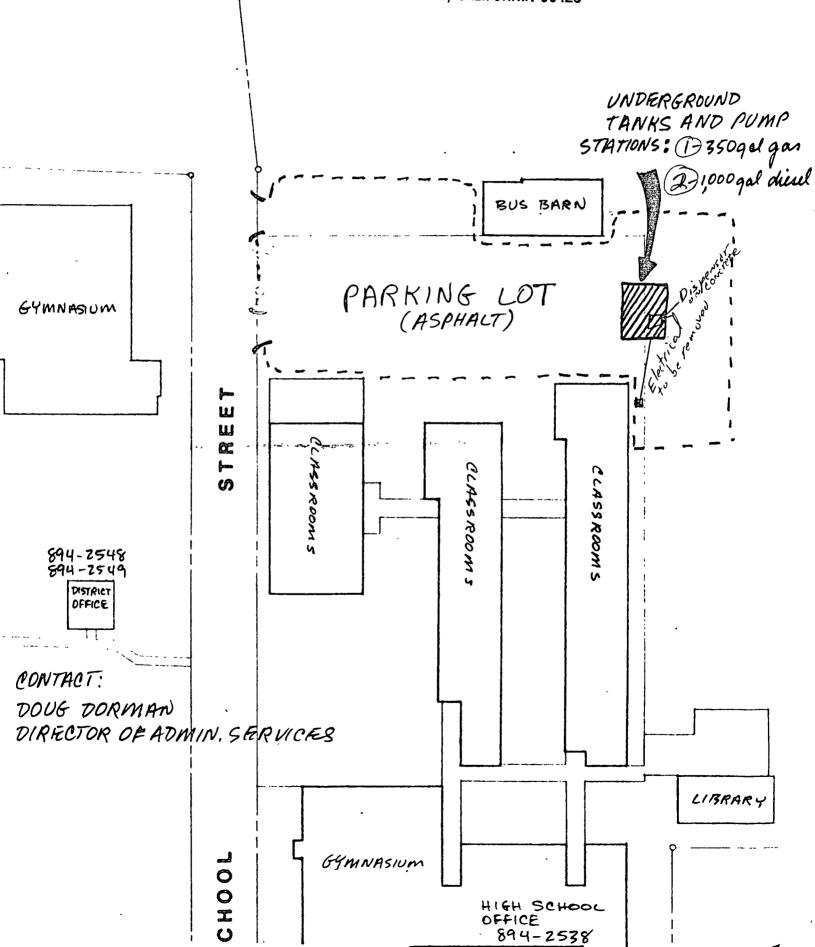
Director of Administrative Services

DD/sc

cc: Scott Brown, Superintendent Bill Wiggins, Consultant

## SITE PLAN

CLOVERDALE UNIFIED SCHOOL DISTRICT
97 SCHOOL STREET
CLOVERDALE, CALIFORNIA 95425



er:	nit	#			
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# SONOMA COUNTY UNDERGROUND STORAGE TANK PERMIT APPLICATION SUPPLEMENTAL APPLICATION - CLOSE/REMOVE TANK

FACILITY NAME: CLOVER PALE VALIFIED SCHOOL & &
FACILITY ADDRESS: 509 N. CLOVERACE BLUD, \$ 3
Temporary Closure? / / Yes / / No' Anticipated Length of Closure
Permanent Closure? 11 Yes 1 No Date tank will be closed 7/17 - 7/11/86
Number of Tanks 2 Tank Size 350g \$ 1000g Age of Tank VNK.
Tank Contents: Product/Chemical Name O LASCUME SCHESEL
CAS # (if known)
Reason for Tank Closure NO LONGER TO BE USED
NOTE: Products/chemicals must be removed from all closed tanks.
Removed Product/Chemical Destination or Disposal Location:
Name of Facility
Address
Phone
Method of Hauling Product/Chemical:
Hauler Licensed by DOT? $/\sqrt{\frac{1}{2}}$ Yes $/\sqrt{\frac{1}{2}}$ No
DOT License Number <u> </u>
Hauler's Name
Address SAN FRANCISCO CA.
Phone 415-543-4835
If tank is being permanently closed, complete the following:
Has tank leaked? // Yes // No /X/ Unknown
Has soil sampling for product contamination been done? / / Yes / No / / Unknown
Analytical Laboratory used for Analysis: SOU SAMPLES WHEN WE WE Name of Laboratory MULTI-TEUL OF PERSONAL
Address SANTA ROSA
Phone 544-5570
(Provide copy of test for product contamination of soil.)

If s	soil contamination has occurred, complete the following:	7. A.
1)	How will contaminated soil be removed?	98 98
2)	How will contaminated soil be transported?	E & 3/2 %
3)	Who will transport contaminated soil?	<del>)</del>
	Hauler Licensed by EPA? / / Yes / / No	
	BPA License Number	
	Hauler's Name	
	Address	
	Phone	
4)	Destination of Contaminated Soil:	
	Name of Facility	
	Address	
	Phone	
5)	Type of Backfill Material	
Is T	Tank to be: / / Abandoned in Place / / Removed	
	tank is to be abandoned in place, complete Section I below. If tank is to be oved, complete Section II below.	
SECT	TION I - ABANDONMENT IN PLACE	
	vide/attach plot plan of existing facility, identifying boundaries, equipment, ation of abandoned tank(s).	and
What	t inert material will be used to fill empty in-place tank and piping?	
vert	ach copy of notice to be placed in the property deed (notice shall describe extical and areal location of the closed tank, the hazardous substance it contain the closure method).	
SECT	rion II - TANK REMOVAL	
	vide/attach plot plan of existing facility, identifying boundaries, equipment, ation of abandoned tank(s).	and
Tank	k and Piping Destination for Disposal or Destruction:	
	Name of Facility H & H SMIPPING SERVICES	5
	Address	
	Phone	
NOTE	E: All tanks product contents must be removed prior to removal of the tank.	
Is t	the tank to be reused for scrap material? 17 Yes 1 / No VHEALOW	<del>//-</del>
	the removed tank proposed for reuse for underground storage? / / Yes	
	If yes: Name of Future Owner/Operator	
	Location of Reuse	
	Nature of Reuse	

	OUNTY SCHOOLS CALIFORNIA 95401	,		188139	AUDITORS WARRANT	מגרטטר	
pistriet /	ODSTRUCT RIAME	VEIXIDOII (IO)		VENDOR		ussue date	
81 CLOWE	RDALE UNIFIED	_ 010352 SC	NOMA	COUNTY PU	BLIC HEA	ALTH 03/31/8	6
,			1	VOCOUNT	,000		
(INVOIGE DIAVE		CELEBRATION CO.	FU SF GS		J	UNIT AMOUNT :	
12/27/86	PERMITS/GASETANK	PN-4861⁄947 €.	011199	974007400	5800.000	3000 / 417•0	0
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					TOTAL	\$417.0	0 .

2262

RDBERT L. HOLTZER, M.D. PUBLIC HEALTH OFFICER



0277X

# SONOMA COUNTY PUBLIC HEALTH DEPARTMENT

APR 7 1986 PUBLIC HEALS & PASTAMENT 3313 CHANATE ROAD SANTA ROSA, CALIFORNIA 95404 PHONE: 527-2605

Clov 97 Clo	Re: Application for Permit to Operate underground storage tank(s) at 975chool 5t.  verdale, CA 95425  P.O. 31911
applicati	ication has been received. A preliminary review indicates the on is incomplete, and the following item(s) are needed in order to the review process:
<u>X</u> 1.	An accurate and complete plot plan (see reverse side).
<u>X</u> 2.	A written response plan (see reverse side).
<u>×</u> 3.	Specific information on the leak detection and monitoring system used for the tank(s), in accordance with State regulation (see attachment).
<u>×</u> 4.	A written, routine monitoring procedure (see reverse side).
5.	A completed form #UT3 for each tank (encrosed), numbered in accordance with location shown on the plot plan.
<u></u> ✓ 6.	Correct fee should be in the amount of 417.00 Check or money order payable to "Sonoma County Public Health."
<u> </u>	other: do both the 350 gal. + 1000 gal. tank contain regular gas, as shown on your application?
tanks, (916) 3 Further	need a complete copy of the State regulations on underground storage contact Betty Moreno, State Water Resources Control Board, 24-1262.  information can be obtained by calling
DRP/ 11	



# SONOMA COUNTY PUBLIC HEALTH DEPARTMENT

March 20, 1986

3313 CHANATE ROAD SANTA ROSA, CALIFORNIA 95404-1795 PHONE 527-2605

Cloverdale Unified School 97 School Cloverdale, CA 95425

Subject: Violation of the California Health and Safety Code, Operating an

Underground Storage Tank Without a Permit, at 97 School

Dear Owner/Operator:

On numerous occasions in 1985, our office informed you of your responsibility to make application with this Department to place your underground storage tank under an operating permit. The law requires that owners of existing tanks must submit an application to the local agency by January 30, 1986, and have an operating permit by March 1, 1986.

To date our files indicate that we have not received an application from you for your existing tanks. Therefore, you are in violation of Section 25284 of the California Health and Safety Code, operating an underground storage tank without a permit. Violation of the law by failure to obtain a permit places the owner/operator liable for civil penalties of fines of not less than \$500 or more than \$5000 per day of violation, California Health and Safety Code Section 25299, and Sonoma County Code, Section 29-43.

Furthermore, Sonoma County Code, Section 29-8(c) requires a penalty equal to 10% of the permit fee be added to and collected with the permit fee for all fees that are delinquent for 30 days (delinquent fees required after April 1, 1986). For each month or fraction thereof in which the delinquency continues, an additional 10% penalty shall be collected.

You are directed to make application for an operating permit for your existing tanks, and pay the appropriate permit fee (per enclosed fee calculation sheet) and the required delinquent penalty fees. Owners of tanks failing to make application for this permit in a timely fashion will require this office to seek legal action and fines specified in Section 25299 of the law. If you have just recently made application and paid the appropriate fees to this Department, please disregard this letter.

Due to the nature of this letter, you may have questions and should direct them to the undersigned at (707) 527-2784, Monday through Thursday.

Very truly yours,

JEFF D. LEWIN, R.S. Supervising Sanitarian

JL/11/0656X

Enclosure: Fee Worksheet

cc: District Attorney's Office





## SONOMA COUNTY PUBLIC HEALTH DEPARTMENT

3313 CHANATE ROAD SANTA ROSA, CALIFORNIA 95 104 PHONE 527-2605

January 9, 1986

Douglas Dorman Cloverdale Unified School District 97 School St. Cloverdale, CA 95425

Dear Doug:

As per our discussion of January 7, 1986, you should take into consideration the age and condition of the underground tanks in determining your monitoring needs. Your tanks are 30+ years old; the average tank life, as per EPA estimates, is 17 years. In order to minimize your economic impact, you should consider tank replacement or complete tank removal. Obviously, you need to assess the need for an underground tank. Once you have made that decision, your alternatives become evident.

Should you have any questions, please call me at 527-2891.

Very truly yours,

JACK M. LEE, R.S. HazMat Sanitarian

JML/11

0446X



01/07/80 - mot = Dong Dorman

will re-evoluate situation; more than likely to

resubmit application for took removal:



# SONOMA COUNTY PUBLIC HEALTH DEPARTMENT

3313 CHANATE ROAD SANTA ROSA, DALIFORNIA 95404 PHONE 527-**2**605

12-27-85

. <u>. Clo</u> v . <u>. 97</u>	revolute United School Dist.  School St.  2 ventule, Cut 95425  Re: Application for Permit to Operate underground storage tank(s) at 915chool St.
applicati	lication has been received. A preliminary review indicates the ion is incomplete, and the following item(s) are needed in order to the review process:
<u>×</u> 1.	An accurate and complete plot plan (see reverse side).
<u>×</u> 2.	A written response plan (see reverse side).
<u>×</u> 3.	Specific information on the leak detection and monitoring system used for the tank(s), in accordance with State regulation (see attachment).
<u>×</u> 4.	A written, routine monitoring procedure (see reverse side).
5.	A completed form #UT3 for each tank (enclosed), numbered in accordance with location shown on the plot plan.
文. 6.	Correct fee should be in the amount of 417.00.  Check or money order payable to "Sonoma County Public Health."
<u>`X</u> 7.	other: do buth the 350gal; & 1000gal, tank contain regular gus, as shown on your application?
	eed a complete copy of the State regulations on underground storage ontact Betty Moreno, State Water Resources Control Board, 1-1262.
Further i at (707) between	nformation can be obtained by calling Tack Lee  527-2891, 140, through Free,
DI.E/11	ACCOUNT TO SHEET SHEET STORY SHEET SHEET
0277X	

## SONOMA COUNTY UNDERGROUND STORAGE TANK PERMIT APPLICATION

<del></del>	
/XX/ New Application (facility does not curr	ently have operational permit from E.H.)
// Update Application	
Application is to (check the appropriate):	
Proposed Facility  (complete form #UT3)  // Transfer of Ownership  // Install New Tank  (complete form #UT3 + UT1)  // Modify Existing Tank  (complete form #UT3 + UT1)	/ Modify Piping (complete form #UT3 + UT1) / Close Tank (complete form #UT4 + UT1) / Remove Tank (complete form #UT4 + UT1) / Install Leak Detection/Monitoring Syst (complete form #UT3 + UT1)  y, close or remove a tank, please be sure to
	Tradetons as Indicated above.
PART I	
FACILITY OWNER	
Name CLOVERDALE UNIFIED SCHOOL DIST	TRICT
Street Address 97 School Street	
cityCloverdale	State CA Zip Code 95425
Phone (707) 894-2548	_
FACILITY OPERATOR (Complete only if different	than OWNER)
Name AS ABOVE	
Street Address	
City	StateZip Code
Phone	-
FACILITY	
Business Name AS ABOVE	
Street Address	
City	StateZip Code
Phone Nearest (	cross Street
Send mail regarding this permit to (check one	·):
/XX/ Owner /_/ Operator /_/	Facility
Within City Limits? $XX/Y$ Yes $Y/Y$ No Ass	essor's Parcel No. 001 021 28
City Codes (for use by staff only):	
/_/ (1) Cloverdale /_/ (2) Cotati	/_/ (3) Healdsburg /_/ (4) Petaluma
/ / (5) Rohnert Park / / (6) Santa Ro	sa / / (7) Sebastopol / / (8) Sonoma
For Office Use: Fee State Surg	harge Total Fee

II not within city limits, list rire district_	
Water Source: /XX/ Public / / Private	
Occupied Hours: 7:30 Am to 5:0	00 _{PM}
Emergency Response:	
Day Contact Person DAN ZAFFARANO	Phone894-2940
Night Contact Person DOUG DORMAN	
Type of Business: / (01) Gas Station	·
XX/ (09) Other SCHOOJ	L DISTRICT
Total Number of Containers 2 Tota	al Capacity - All Tanks 1,350 Gals.
Sewage Disposal: /XX Public Sewer / / Sept	ic System
PART II - Complete only if this is an applicati a facility.	
*AT / A	. * - 3
Address	•
Previous Operator	
Address	
Date of Transfer	
PART III - Complete only if new application for	
Obtain and complete a supplemental application	
THE FOLLOWING ITEMS MUST BE ATTACHED TO PERMIT  RESPONSE PLAN  Provide written procedures describing the steps	to be taken should a leak occur. This
must include the equipment used in the procedur file, this requirement can be deleted.	es. If a current response plan is on
PLOT PLAN (include the following):	
Scale and key to symbols used	
North arrow Location of all tanks and piping (number t Details of secondary containment systems Property lines Buildings	UNKNOWN .
Water supply wells and/or water service li Sewage disposal system	
Materials of construction of storage tank Any surface water adjacent to property N(	ONE -
Leak detection systems with slope and flow Leak detection system (equipment)	directions UNKNOWN UNKNOWN
Overfill protection system Rainwater collection system	UNKNOWN
Nearest cross street Installation cross-section and evaluations	of equipment UNKNOWN
	A
DATE 12/12/85	allylen & Horman
	APPLICANT SIGNATURE
Direc	ctor/Administrative Services

(page 2 of 2) UT2

APPLICANT TITLE

Permit	ŧ	

2/4%



# SONOMA COUNTY UNDERGROUND STORAGE TANK PERMIT APPLICATION SUPPLEMENTAL APPLICATION - TANK DESCRIPTION

FACILITY NAME: CLOVERDALE UNIFIED SCHOOL DISTRICT
Complete one form for $\underline{\mathtt{EACH}}$ tank currently in operation, being installed, or being modified.
SECTION I - TANK/CONTAINER DESCRIPTION
Tank Number (from plot plan) $\#2$
Container Type: AXY/ (01) Tank / / (09) Other
Container Serial No. Unknown Container U.L. No. Unknown
Container Manufacturer Unknown
Manufacturer Address
Manufacturer Phone
Year Container Installed 1965 Approx.
Container Capacity 1,000 Dimensions of Container Unknown
Current Container Contents:
/_/ (01) Unleaded /XX/ (02) Regular /_/ (03) Premium // (04) Diesel
/_/ (05) Waste 0il // (09) Other (list)
Product CAS Number (if known)
Has container been used previously to store different chemicals? $\frac{\sqrt{}}{2}$ Yes $\frac{\sqrt{2}}{2}$ No (If yes, please fill out Section IV.)
Note: If new tank installation, manufacturer's data documenting product and tank compatibility must be provided. Please attach to this application.
USED TANKS CANNOT BE PLACED IN OPERATION WITHOUT PRIOR APPROVAL FROM ENVIRONMENTAL HEALTH SERVICES.
SECTION II - CONTAINER CONSTRUCTION (check all appropriate boxes)
Primary Container
Thickness of Primary Containment:
// gauge // inches // centimeters XX/ unknown
Vaulting: $\frac{1}{2}$ (01) Vaulted $\frac{1}{2}$ (02) Non-Vaulted $\frac{1}{2}$ (u) Unknown
Walling: $\frac{1}{\sqrt{1}}$ (01) Double $\frac{1}{\sqrt{1}}$ (02) Single $\frac{1}{\sqrt{1}}$ (03) Lined $\frac{1}{\sqrt{1}}$ (09) Other
Walling Material: $/\overline{X}\overline{X}$ (01) Carbon Steel $/\overline{\hspace{0.1cm}}'$ (02) Stainless Steel
/ / (03) Fiberglass / (04) Polyvinyl Chloride / (05) Concrete
/_/ (06) Aluminum /_/ (07) Steel-Clad /_/ (08) Bronze
$\frac{1}{2}$ (09) Composite $\frac{1}{2}$ (10) Non-Metallic $\frac{1}{2}$ (11) Earthen Walls
/_/ ( u) Unknown /_/ (99) Other:

Lining Type: / / (01) Rubber / / (02) Alkyd / / (03) Epoxy
/_/ (04) Phenolic /_/ (05) Glass /_/ (06) Clay XX/ (07) Unlined
/_/ (09) Other /_/ ( u) Unknown
Wrapping Type: / (01) Polyethylene / (02) Vinyl / (03) Cathodic Protection
/_/ (04) Tar or Asphalt XX/ (06) None /_/ (09) Other /_/ (u) Unknown
Cathodic Protection: / (01) Electric Anode / (02) Sacrificial
Secondary Container (If container is double-walled and walling material is the same as the primary container, skip this section.)
Volume of Secondary Containment N/A
Thickness of Secondary Containment
Walling Material: / (01) Carbon Steel / (02) Stainless Steel
/_/ (03) Fiberglass /_/ (04) Polyvinyl Chloride /_/ (05) Concrete
/_/ (06) Aluminum /_/ (07) Steel-Clad /_/ (08) Bronze
/ / (09) Composite / / (10) Non-Metallic / / (11) Earthen Walls
/_/ ( u) Unknown /_/ (99) Other:
Piping Type (check all appropriate boxes):
// Above-Ground
/ / (01) Double-Walled Pipe / / (02) Concrete-Lined Trench / / (03) Gravity
/_/ (04) Pressure /_/ (05) Suction /_/ (07) None /_/ ( u) Unknown
/_/ (09) Other
XX/ Below-Ground
/ / (01) Double-Walled Pipe / / (02) Concrete-Lined Trench / / (03) Gravity
$\frac{1}{1}$ (04) Pressure $\frac{1}{2}$ (05) Suction $\frac{1}{1}$ (07) None $\frac{1}{1}$ (u) Unknown
/_/ (09) Other
SECTION III - MONITORING AND LEAK DETECTION SYSTEMS
Tank Leak Detection (check all appropriate boxes):
/_/ (01) Visual /_/ (02) Stock Inventory /_/ (03) Tile Drain
/ / (04) Vapor Sniff Wells / (05) Sensor Instrument
/ (06) Groundwater Monitoring Wells / (07) Pressure Test
(08) Internal Inspection $(10)$ None $(10)$ Volume
/_/ (09) Other (specify)
Pipe Leak Detection:
/_/ Pressure Loss Detector /_/ Other (specify)NONE
ManufacturerPhone
Address

# Overflow Prevention Describe overflow prevention system and include in plans submitted (use additional paper if necessary): Fill pipe 12 inches above ground level Product Loss and Rainfall Removal System Describe product loss removal system (use additional paper if necessary): Describe rainfall removal system (use additional paper if necessary): NONE SECTION IV - CHEMICAL COMPOSITION OF MATERIALS PREVIOUSLY STORED Chemical (do not use commercial name) CAS # (if known) NONE HNONE

Cloverdale High School H Fuel Pump · Fill pipe Storm drain A Sewer Clean out En city water freeze Toxe de la Maria ,omes courts Private Tenn15 gus Barn#shop Sewer line Apply ولا أده Athletic Field Faculty Parting Jefferson Street 田 Shoping Washington

Permit	#		

### SONOMA COUNTY UNDERGROUND STORAGE TANK PERMIT APPLICATION

		O ₂ ,
/XX/ New Application (facility does not	currently have operational perm	it Krom B.H.
// Update Application		CHON CON
Application is to (check the appropriate	e):	174 OC 8
	/ / Modify Piping	T1) T1) nitoring Syst. T1) please be sure to
PART I		
FACILITY OWNER		
Name CLOVERDALE UNIFIED SCHOOL	DISTRICT	
Street Address 97 School Street		
City_ Cloverdale		Code 95425
Phone (707) 894-2548	D0000 B1P (	
FACILITY OPERATOR (Complete only if diff	ferent than OWNER)	
Name AS ABOVE		
Street Address		
City	State Zip (	Code
Phone	<del></del>	
FACILITY		
Business NameAS ABOVE		
Street Address		
City	State Zip (	Code
Phone Near	rest Cross Street	
Send mail regarding this permit to (chec		
<u>/XX</u> / Owner // Operator	/_/ Facility	
Within City Limits? XX/ Yes / / No	Assessor's Parcel No. 001	021 28
City Codes (for use by staff only):	,	
(1) Cloverdale / / (2) Cot	tati / / (3) Healdsburg /	/ (4) Petaluma
/_/ (5) Rohnert Park /_/ (6) Sar	nta Rosa // (7) Sebastopol /	/ (8) Sonoma
For Office Use:, Fee State	e Surčharge Total	Fee
	<u> </u>	

If not within City Limits, list Fire District	<del></del>
Water Source: /XX/ Public /_/ Private	•
Occupied Hours: 7:30 AM to 5:00	PM
Emergency Response:	
Day Contact Person DAN ZAFFARANO	Phone 894-2940
Night Contact Person DOUG DORMAN	Phone 894-4184
Type of Business: / (01) Gas Station	
XX/ (09) Other SCHOOL DIS	STRICT
Total Number of Containers 2 Total Cap	pacity - All Tanks 1,350 Gals.
Sewage Disposal: $\sqrt{XX}$ Public Sewer $\sqrt{}$ Septic Sy	ystem
PART II - Complete only if this is an application to a facility.	TRANSFER ownership or operation of
Previous OwnerN/A	
Address	Phone
Previous Operator	
Address	Phone
Date of Transfer	
PART III - Complete only if new application for OPER	RATIONAL PERMIT.
Obtain and complete a supplemental application (form operation and/or proposed for installation.	# <u>UT3</u> ) for <u>each</u> tank currently in
THE FOLLOWING ITEMS MUST BE ATTACHED TO PERMIT APPLI	CATION:
RESPONSE PLAN	
Provide written procedures describing the steps to be must include the equipment used in the procedures. file, this requirement can be deleted.	
PLOT PLAN (include the following):	
Scale and key to symbols used	
Property lines	nks) UNKNOWN NKNOWN
Buildings Water supply wells and/or water service lines	
Sewage disposal system  Materials of construction of storage tank and p	oiping system UNKNOWN
Any surface water adjacent to property NONE Leak detection systems with slope and flow dire	ections UNKNOWN
Leak detection system (equipment) Overfill protection system	UNKNOWN
Rainwater collection system Nearest cross street	UNKNOWN
Installation cross-section and evaluations of e	equipment UNKNOWN
DATE 12/12/85 WOUM	an E. Norman
	APPLICANT SIGNATURE

(page 2 of 2) UT2

APPLICANT TITLE

Permit	#		



# SONOMA COUNTY UNDERGROUND STORAGE TANK PERMIT APPLICATION SUPPLEMENTAL APPLICATION - TANK DESCRIPTION

41 20001
FACILITY NAME: CLOVERDALE UNIFIED SCHOOL DISTRICT 7
Complete one form for $\underline{\mathtt{EACH}}$ tank currently in operation, being installed, or being modified.
SECTION I - TANK/CONTAINER DESCRIPTION
Tank Number (from plot plan) $\#1$
Container Type: <u>/xx</u> / (01) Tank / / (09) Other
Container Serial No. Unknown Container U.L. No. Unknown
Container Manufacturer Unknown
Manufacturer Address
Manufacturer Phone
Year Container Installed 1955
Container Capacity 350 gal Dimensions of Container Unknown
Current Container Contents:
/ / (01) Unleaded /XX/ (02) Regular / / (03) Premium / / (04) Diesel
/_/ (05) Waste 0il /_/ (09) Other (list)
Product CAS Number (if known)
Has container been used previously to store different chemicals? $\frac{\sqrt{}}{\sqrt{}}$ Yes $\frac{\overline{XX}}{\sqrt{XX}}$ No (If yes, please fill out Section IV.)
Note: If new tank installation, manufacturer's data documenting product and tank compatibility must be provided. Please attach to this application.
USED TANKS CANNOT BE PLACED IN OPERATION WITHOUT PRIOR APPROVAL FROM ENVIRONMENTAL HEALTH SERVICES.
SECTION II - CONTAINER CONSTRUCTION (check all appropriate boxes)
Primary Container
Thickness of Primary Containment:
Vaulting: $\frac{\sqrt{}}{2}$ (01) Vaulted $\frac{\sqrt{2}}{2}$ (02) Non-Vaulted $\frac{\sqrt{}}{2}$ ( u) Unknown
Walling: $\frac{1}{2}$ (01) Double $\frac{1}{2}$ (02) Single $\frac{1}{2}$ (03) Lined $\frac{1}{2}$ (09) Other
Walling Material: $/\overline{XX}$ (01) Carbon Steel $/\overline{}$ (02) Stainless Steel
/_/ (03) Fiberglass /_/ (04) Polyvinyl Chloride /_/ (05) Concrete
/_/ (06) Aluminum /_/ (07) Steel-Clad /_/ (08) Bronze
/_/ (09) Composite /_/ (10) Non-Metallic /_/ (11) Earthen Walls
/_/ ( u) Unknown /_/ (99) Other:

Lining Type: / / (01) Rubber / / (02) Alkyd / / (03) Epoxy
/_/ (04) Phenolic /_/ (05) Glass /_/ (06) Clay XX/ (07) Unlined
/_/ (09) Other /_/ ( u) Unknown
Wrapping Type: /_/ (01) Polyethylene /_/ (02) Vinyl /_/ (03) Cathodic Protection
/_/ (04) Tar or Asphalt XX/ (06) None /_/ (09) Other /_/ (u) Unknown
Cathodic Protection: /_/ (01) Electric Anode /_/ (02) Sacrificial
Secondary Container (If container is double-walled and walling material is the same as the primary container, skip this section.)
Volume of Secondary Containment N/A  Thickness of Secondary Containment
Thickness of Secondary Containment
Walling Material: /_/ (01) Carbon Steel /_/ (02) Stainless Steel
/_/ (03) Fiberglass /_/ (04) Polyvinyl Chloride /_/ (05) Concrete
/_/ (06) Aluminum /_/ (07) Steel-Clad /_/ (08) Bronze
/ / (09) Composite / / (10) Non-Metallic / / (11) Earthen Walls
/_/ ( u) Unknown /_/ (99) Other:
Piping Type (check all appropriate boxes):
/_/ Above-Ground
/_/ (01) Double-Walled Pipe /_/ (02) Concrete-Lined Trench /_/ (03) Gravity
/_/ (04) Pressure /_/ (05) Suction /_/ (07) None /_/ (u) Unknown
/_/ (09) Other
XX/ Below-Ground
/_/ (01) Double-Walled Pipe /_/ (02) Concrete-Lined Trench /_/ (03) Gravity
$\frac{1}{1}$ (04) Pressure $\frac{1}{1}$ (05) Suction $\frac{1}{1}$ (07) None $\frac{1}{1}$ (u) Unknown
/_/ (09) Other
SECTION III - MONITORING AND LEAK DETECTION SYSTEMS
Tank Leak Detection (check all appropriate boxes):
/_/ (01) Visual /_/ (02) Stock Inventory /_/ (03) Tile Drain
/ / (04) Vapor Sniff Wells / / (05) Sensor Instrument
/_/ (06) Groundwater Monitoring Wells /_/ (07) Pressure Test
(08) Internal Inspection $XX/$ (10) None $(10)$ Unknown
/_/ (09) Other (specify)
Pipe Leak Detection:
/_/ Pressure Loss Detector /_/ Other (specify)NONE
ManufacturerPhone
Address

# Overflow Prevention Describe overflow prevention system and include in plans submitted (use additional paper if necessary): Fill pipe 12 inches above ground level Product Loss and Rainfall Removal System Describe product loss removal system (use additional paper if necessary): NONE Describe rainfall removal system (use additional paper if necessary): NONE SECTION IV - CHEMICAL COMPOSITION OF MATERIALS PREVIOUSLY STORED Chemical (do not use commercial name) CAS # (if known) NONE NONE

APPLICATION FOR PERMIT TO	ner	STATE ID NUMBER 00000055128002		
( ) OI NEW PERMIT ( ) OS RENENED PERMIT.	( ) (	07 TANK CLOSED ( ) 09 DELETE FROM FILE (NO FEE) 08 MINOR CHANGE (NO SURCHARGE)		
OWNER				
NAME(CÓRPORATION, INDÍVIDUAL ÓR PUBLIC ÁGENCY) CLOVERDALE UNIFIED SCHOOL DIST		PUBLIC AGENCY ONLY ( ) 01 FED ( ) 02 STATE 03 LOCAL		
STREET ADDRESS 97 SCHOOL ST.	, h	CITY STATE ZIP CLOVERDALE CA 95425		
II FACILITY				
FACILITY NAME CLOVERDALE UNIFIED SCHOOL DIST	, , ,	DEALER/FOREMAN/SUPERVISOR  JAMES D MEADLES Dan Zaffarano		
STREET ADDRESS 97 SCHOOL ST.		NEAREST CROSS STREET JEFFERSON STREET		
CLOVERDALE	*	COUNTY SONOMA 27P. 95425		
MAILING ADDRESS 97 SCHOOL ST.	CLO/	TY STATE ZIP 95425		
PHONE W/AREA CODE TYPE OF BUSINESS (-) 01 GASOLINE		ATION (X) 02 OTHER SCHOOL DISTRICT		
NUMBER OF CONTAINERS RURAL AREAS ONLY	เหล่า	HIP SECTION		
III 24 HOUR EMERGENCY CONTACT PERSON	<i>.</i>			
DAYS: NAME (LAST NAME FIRST) AND PHONE W/AREA CODE NIGHTS: NAME (LAST NAME FIRST) AND PHONE W/AREA CODE CUMMINS - RICHARD 707-894-5467 4184				
ZATTOTANO, DON CONPLETE THE FOLLOWING ON A SEPARATE FORM FOR EACH CONTAINER				
IV DESCRIPTION ,		The state of the s		
A. (X) 01 TANK ( ) 04 OTHER:	- , , , , , , , , , , , , , , , , , , ,	CONTAINER NUMBER #1		
B. MANUFACTURER (IF APPROPRIATE): YEAR MEG: YEAR INSTALLED 1965 ( ) UNKNOWN				
D. CONTAINER CAPACITY: 1000 GALLONS ( ) UNKNOWN E. DOES THE CONTAINER STORE: ( ) 01 WASTE (X) 02 PRODUCT				
F. DOES THE CONTAINER STORE MÖTOR VEHICLE FUEL OR WASTE OIL ? (X) OI YES () 02 NO (IF YES CHECK APPROPRIATE BOX(ES): (1) 01 UNLEADED ( ) 02 REGULAR ( ) 03 PREMIUM (X) 04 DIESEL ( ) 05 WASTE OIL ( ) 06 OTHER				
/ CONTAINER CONSTRUCTION	· .			
A. THICKNESS OF PRIMARY CONTAINMENT: ( ) GAUGE ( ) INCHES ( ) CM (X) UNKNOWN				
B. ( ) 01 VAULTED (LOCATED IN AN UNDERGROUND VAULT) (X) 02 NON-VAULTED () 03 UNKNOWN				
C. ( ) OI DOUBLE WALLED (X) OZ ŚINGLĘ WALLED ( ) O 3 LINED				
D. (X) 01 GARBON STEEL ( ) 02 STAINLESS STEEL ( ) 03 F ( ) 06 ALUMINUM ( ) 07 STEEL CLAD ( ) 08 BRONZE ( ) 12 UNKNOWN ( ) 13 OTHER				
	Y ** *	2.5		

# CONTAINER CONSTRUCTION

The state of the s
E. ( ) 01 RUBBER LINED ( ) 02 ALKYD LINING ( ) 03 EPÔXY LINING ( ) 04 PHENOLIC LINING ( ) 05 GLASS LINING ( ) 09 OTHER:
F: ( ) 01 POLYETHLENE WRAP ( ) 202 VINYL WRAPPING ( ) 03 CATHODIC PROTECTION (X) 304 UNKNOWN ( ) 05 NONE
VI PIPING
A. ABOVEGROUND PIPING: ( ) 01 DOUBLE-WALLED FIPE ( ) 02 CONCRETE-LINED TRENCH ( ) 03 GRAVITY ( ) 04 FRESSURE ( ) 05 SUCTION ( ) 06 UNKNOWN ( ) 07 NONE
B. UNDERGRÓUND PIPING: (1) 01 DOUBLE-MALLED PIPE (1) 02 CONCRETE-LINED TRENCH (1) 03 GRAVITY (1) 04 PRESSURE (X) 05 SUCTION (1) 106 UNIXNOWN: (2) 07 NONE (2) 07 NONE
VII LEAK DETECTION
(X) 01 VISUAL (X) 02 STOCK INVENTORY ( ) 04 VAPOR SNIFF WELLS ( ) 05 SENSOR INSTRUMENT.
VIII CHEMICAL COMPOSITION OF MATERIALS STORED IN UNDERGROUND CONTAINERS
CURRENTLY PREVIOUSLY DELETE CAS# (IF KNOWN). CHÉMICAL (IDÓ NOT USE COMMERCIAL NAME).
(C) 07 (2) (C) 03 ( ) (D) (M) [M] [M] [M] [M]
() 01 (C) 02 * C) 03
() of 1 (c) (02 (c) (03 (c) (c) (d) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d
(a) 01 (b) 02 (c) 03 (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d
(c) 01 (1) 02 (1) 03 (C)
( ) 01 ( ) 02 ( ) 03 ( ) 03 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (
( ) 01 ( ) 02 ( ) 03 ( ) ( )
(C) (01 (C) (02 (C) 03 (C) (13 (C)
* CHECK STATE BOARD CHEMICAL CODE LISTING FOR POSSIBLE SYNONYMS
IS CONTAINER LOCATED ON AN AGRICULTURAL FARNS ( ) 01 YES (X) 02 NO
HIS FORM HAS BEEN COMPLETED UNDER THE PENALTY OF PERJURY AND THE BEST OF MYSKNOWLEDGE! IS TRUE AND CORRECT!
PERSON FILING (SIGNATURE)
FOR LOCAL AGENCY USE ONLY
ADMINISTRATING AGENCY
CONTACT PERSON
DATE OF LAST INSPECTION IN COMPLIANCE PERMIT APPROVAL DATE TRANSACTION DATE LOCAL PERMIT ID #
· · · · · · · · · · · · · · · · · · ·

#### APPLICATION FOR PERMIT TO OPERATE UNDERGROUND STORAGE TANK

1 100 - 1 101		
( ) 01 NEW PERMÍT ( ) 05 RENEWED PERMIT ( ) 07 TANK CLOSED ( ) 09 DELETÉ FROM FILE (NO PÉE) ( ) 02 CONDITIONAL PERMIT ( ) 06 AMENDED PERMIT ( ) 08 MINOR CHANGE (NO SURCHARGE)		
L'ET OWNER		
NAME(CORPORATION, INDIVIDUAL OR PUBLIC AGENCY) CLOVERDALE UNIFIED SCHOOL DIST  ( ) 01 FED ( ) 03 LOCAL		
STREÉT, ADDRESS 97 SCHOOL ST. CLOVÉRDALE CA. 95425		
II FACILITY		
FÄCILITY NAME CLOVERDÁLE UNIFIED SCHOOL DIST JAMES D. MCAULEY,		
NEAREST CROSS STREET  77 SCHOOL ST.  NEAREST CROSS STREET  JEFFERSON STREET		
CITY COUNTY SONOMA 21P 95425		
MAILING ÄDDRESS 97 SCHOOL ST. CLOVERDALE STATE 95425		
PHONE W/AREA CODE TYPE OF BUSINESS TATION (X) 02 OTHER SCHOOL DISTRICT		
NUMBER OF CONTAINERS RURAL AREAS ONLY TOWNSHIP RANGE SECTION		
III 24 HOUR EMERGENCY CONTACT PERSON		
DAYS: NAME (LAST NAME FIRST) AND PHÔNE W/AREA CODE		
COMPLETE THE FOLLOWING ON A SEPÄRATE FORM FOR EACH CONTAINER		
A. (X) 01 TANK ( ) 04 OTHER:		
B. MANUFACTURER (IF APPROPRIATE): YEAR MEG: C. YEAR INSTALLED 1965 ( ) UNKNOWN		
D. CONTAÍNER CAPACÍTY: 350 GÁLLONS ( ) UNKNONN E. DOES THE CONTAÎNER STORE: ( ) 01 WASTE (X) 02 PRODUCT		
F. DOES THE CONTAINER STORE MOTOR VEHICLE FUEL OR WASTE OILS (X) 01 YES ( ) 02 NO 1 IF YES CHECK APPROPRIATE BOX(ES): ( ) 01 UNLEADED (X) 02 REGULAR ( ) 03 PREMIUM (2) 04 DIESEL ( ) 05 WASTE OIL ( ) 06 OTHER ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( ) 25 ( )		
CONTAINER CONSTRUCTION		
A. THICKNESS OF PRIMARY CONTAINMENT:		
B. ( ) 01 VAULTED (LOCATED IN AN UNDERGROUND VAULT) (X) 02 NON-VAULTED ( ) 03 UNKNOWN		
C. ( ) O1 DOUBLE WALLED (X) 02 SINGLE WALLED () 03 LINED		
D. (X) 01 CARBON STEEL ( ) 02 STAINLESS STEEL ( ) 03 FIBERGLASS ( ) 04 POLYVINYL CHLORIDE ( ) 05 CONCRETE ( ) 06 ALUMINUM ( ) 07 STEEL CLAD ( ) 08 BRONZE ( ) 09 COMPOSITE ( ) 10 NON-METALLIC ( ) 12 UNKNOWN ( ) 13 OTHER:		

HSC04-070185 (09/09/85)

#### CONTAINER CONSTRUCTION

E. ( ) 01 RUBBER LINED ( ) 02 ALKYD LÎNING ( ) 03 EPOXY LINING ( ) 04 PHENOLIC LÎNING ( ) 05 GLASS LINING (X) 07 UNLINED ( ) 08 UNKNOWN ( ) 09 OTHER:
F. ( ) 01 POLYETHLENE WRAP ( ) 02 VINYL WRAPPING ( ) 03 CATHODIC PROTECTION (X) 04 UNKNOWN ( ) 05 NONE ( ) 06 TAR OR ASPHALT ( ) 09 OTHER:
VÎ PIPING
A. ABOVEGROUND PIPING: ( ) 01 DOUBLE-WALLED PIPE ( ) 02 CONCRETE-LINED TRENCH ( ) 03 GRAVITY  (CHECK APPROPRIATE BOX(ES) ( ) 04 PRESSURE ( ) 05 SUCTION ( ) 06 UNKNOWN ( ) 07 NONE
B. UNDERGROUND PIPING: ( ) 01 DOUBLE-WALLED PIPE ( ) 02 CONCRETE-LINED TRENCH ( ) 03 GRAVITY ( ) 06 UNKNOWN ( ) 07 NONE
VII LEAK DETECTION:
(X) 01 VISUAL (X) 02 STOCK INVENTORY ( ) 04 VAPOR SNIFF WELLS ( ) 05 SENSOR INSTRUMENT ( ) 06 GROUND WATER MONITORING WELLS ( ) 07 PRESSURE TEST ( ) 09 NONE ( ) 10 OTHER;
VIII-CHEMICAL COMPOSÍTION OF MATERIALS STORED IN UNDERGROUND CONTAINERS  IF YOU CHECKED YES TO IN-F YOU ARE NOT REQUIRED TO COMPLETE THIS SECTION
CURRENTLY PREVIOUSLY DELETE CASH (IF KNOWN) CHEMICAL (DO NOT USE COMMERCIAL NAME)
() 01 () () 02 () (03 ) [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [
() 01 () () 02 ( ) 03 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (
· ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (
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1
(·) (i) () () () () (3)
( ) 01 ( ) 02 ( ) 03 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (
** CHÈCK STATE BOARD CHÉMICAL CODE LISTING FOR POSSIBLE SYNONYMS
IS CONTAINER LOCATED ON AN AGRICULTURAL FARM? ( ) 01 YES (X) 02 NO
HIS FORM HAS BEEN COMPLETED UNDER THE PENALTY OF PERJURY AND, TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.
PERSON FILING (SIGNATURE)
FOR LOCAL AGENCY USE ONLY
ADMINĪSTRATING AGENCY CODE COUNTY CODE
CONTACT PERSON , PHONE WAREA CODE
DATE OF LAST INSPECTION ÎN COMPLIANCE PERMIT APPROVAL DATÉ TRANSACTION DATE LOCAL PERMIT ID #

	UNDERGROUND STOR	AGE TANK	UNAUTHORIZ	ED RELEÁS	E (LEAK)/	CONTAMIN	ATION SITE	REPORT	
EWI	HAS STATE OFF	·v -f		STATE TANK I				NTROL BOARI REGION I	
RE	PORT DATE	CAL CASE #		REGIONAL BO	ARD CASE #	013	US EPA ID#		
0	12 M DO 30 84 7 Y	n/a		37507	n/a	. 1	F	EB <u>6 '87</u>	
<u> </u>	Anne Prouty	:PORT	(707)	523-3860	1 3	ATURE ASUT	□ BK_	🗆 RC_	
60	REPRESENTING LOCAL	AGENCY [	OTHER	COMPANY OR			□ c) _		
PORT	OWNER/OPERATOR	RE	GIONAL BOARD	Donald	Harzog -	and Ass	ociates.	Inch	
REP	3000 Cleveland Av	vnoue	٤	Santa Rug	8	Califor	nia Mer	95台1	
ARTY	NAME Cloverdale Unific	ed Schoo	1 UNKNOWN	Doug D	SON		PHONE	894-2546	<del>,</del> –
RESPONSI	ADDRESS SCHOOL Street		. (	Cloverdal	e	/ Cal	Lformia iformia	95425	
	FACILITY NAME (IF APPLICABL	E)		OPERATOR			PHONE		
CATION	Cloverdale High	School	······	DoughDB	rman		(7071)	W54-1978	3
LOCA	509 N. Cloverdale	Street		Cloverda		So:	noma COUNTY	95425	>
SITE	CROSS STREET	TYPE OF ARE	A COMMERCIAL RURAL	AL INDÚST	' '	TYPE OF BUS	NESS R	etail fuel st School	FAT ION
┢	LOCAL AGENCY	AGENCY NAME	-	CONTACT PER	1 "	<del></del>	PHONE		
Ş	   Sonoma County Pul	alic GeA	1th	Mark S	ullivan		(707)	527-2891	L
AE NTING NCIES	REGIONAL BOARD					· · · · · · · · · · · · · · · · · · ·			
🚡 🗓	Regional Water Qu	ality C	outrol pro	Mark H	arvey		(707)	576-2220	) 
IMPt. AG	TSCD	•			•			•	
M M	CAS # (ATTACH EXT	RA SHEET IF I	NEEDED) NAME			• 4	QUANTITY	LOST (GALLO)	NS)
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SUBST						-			
DE.	(2)		<u> </u>			· ·- · · · · · · · · · · · · ·		U	NKNOWN
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ENT/	THE ALE TABLES WE WAS	ROUTINE MO	NITORING [	I REMOVAL L	NUISANCE	·	OTHER:		
COVE	DATE DISCHARGE BEGAN						CKALL THAT	APPLY)	v
≥ ⊵	HAS DISCHARGE BEEN STOPPED		NKNOWN	REMOVE C					
₽₽	MYES NO IF YES, DATE		Y	REPAIR TA	nn't rem	oval		. PROCEDURES	1
<u> </u>	SOURCE(S) OF DISCHARGE		TANKS ONLY/CA			AL CAUSEIS			
SOURCE/CAUS	TANK LEAK E E UN	киоми	AGE LL	YRS. I UN	KNOWN	OVER	FILL [	CORROSION	
E/C	PIPING LEAK	•	MATERIAL			FIRUPT	URE/ FAILURE	[]SPILL	
JRC			STEEL	FIB	ERGLASS		,	the aid	
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5	RESOURCES AFFECTED	YES NO	THREATENED	UNKNOWN	WATER SUP	PLIES AFFEC	TED THR		OF WELLS
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CES	SURFACE WATER OR STORM DRA BUILDING OR UTILITY VAULT	"" <u> </u>			AGRICULTU				i
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RESOURCES AFFECTED/ AT RISK		GROUNDWATI	ER BASIN NAME ,		·				+
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OMMENTS									-1:
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	UNDERGROUND STORAGE TANK UNAUTHORIZI	ED RELEASE (LEAK)	CONTAMINATION SITE REPORT	
	RGENCY HAS STATE OFFICE OF EMERGENCY SERVICES	STATE TANK ID	CONTROL BOARD	*
	YES X NO! REPORT BEEN FILED? YES NO	REGIONAL BOARD CASE #	US EPA NEGION	
	12 MIO DI 3 DI 8YI7 Y		149URE / FEB 6 87	_
Ť	NAME OF INDIVIDUAL FILING REPORT PHONE	1 /	MATURE FEB 0 81	
}a €	immo sadadi	23-3880 C	\ <u></u> _\ <u></u> \ <u></u> _	_
RTED	REPRESENTING LOCAL AGENCY OTHER  OWNER/OPERATOR REGIONAL BOARD	Donald Eerzog	and Assections Inc.	
REPORT	ADDRESS 3000 Cleveland Avenue San		California -95401	
NSI-	NAME Cloverdale Unified School unknown	Doug Dorman	□ J8(707 [)894-2548	
RESPONSI	ADDRESS 97 School Street	Cloverdale	DIB STATE G5425	_
	FACILITY NAME (IF APPLICABLE)	OPERATOR	10 -HOME   REPLY	
NO.	Cloverdale High School	Doug Dorman	口机(统行) 1984-2548	_
LOCATION	509 N. Cloverdale Street	Cloverdale	COUNTY	01
SITE	CROSS STREET TYPE OF AREA COMMERCIAL TYPE OF AREA COMMERCIAL	_	TYPE OF BUSINESS RETAIL FUEL STATE	_
	LOCAL AGENCY AGENCY NAME	CONTACT PERSON	PHONE	
S N	Sonoma County Public Health	Mark Sullivan	(707 ) 527-2891	
MPLEMENTING AGENCIES	REGIONAL BOARD	i. Mark Harvey	( 707)576-2220	
LEM	Rogional Water Quality Control Bro	. Mark Harvey		_
₩.			( )	
8 0	CAS # (ATTACH EXTRA SHEET IF NEEDED) NAME		QUANTITY LOST (GALLONS)	٥4
SUBSTANCE	m   G   A   S   O   L   I   N   E			
UBS			UNKN	0%
	DATE DISCOVERED HOW DISCOVERED INVE	NTORY CONTROL	SUBSURFACE MONITORING E CONDITIONS OTHER:	
> t	ON 2 M 20 1 D BY 6 Y X ROUTINE MONITORING	REMOVAL	ISCHARGE (CHECK ALL THAT APPLY)	
COVERY/	DATE DISCHARGE BEGAN  M M D D Y Y T UNKNOWN	REMOVE CONTENTS	REPLACE TANK CLOSE TANK	
DISC		REPAIR TANK	EPAIR PIPING CHANGE PROCEDURES	
	XYES NO IF YES, DATE M M D D Y	APACITY 350	GAI CAUSE(S)	
SE	SOURCE(S) OF DISCHARGE TANKS ONLY/CA		GAL CAUSE(S) OVERFILL CORROSION	
SOURCE/CAUS	AGE L	YRS. UNKNOWN	TRUPTURE/FAILURE SPILL	
RCE,	PIPING LEAK	FIBERGLASS		
Sou	OTHER (SPECIFY) OTHER		UNKNOWN OTHER	_
<u>a</u>	RESOURCES AFFECTED YES NO THREATENED	UNKNOWN	JPPLIES AFFECTED YES NO - ENED KNOWN WE	
AFFECTED/	AIR (VAPOR)	PUBLIC D WATER		7
	SOIL (VADOSE ZONE)  GROUNDWATER	函 WATER	DRINKING	1
ES	SURFACE WATER OR STORM DRAIN	INDUSTRI		
ES.	BUILDING OR UTILITY VAULT	X AGRICULT		
RESOURCES A	GROUNDWATER BASIN NAME			
Ĺ		Пикиоми		
١.,	COMMENTS:		. [	
3 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1			1	
		•		
Ι,	COMPLETE AND ATTACH A CLEANUP TRACKING REPORT IF A	NY CLEANUP WORK OR PLAN	INING HAS STARTED HSC 05 1104	

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# COUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT

MARK A. KOSTIELNEY
Director of Public Health
GEORGE R. FLORES, M.D.
Health Officer

#### **ENVIRONMENTAL HEALTH SERVICES**

1030 CENTER DRIVE, SUITE A

SANTA ROSA

CALIFORNIA 95403-2067

TELEPHONE (707) 525-6565

June 14, 1990

Cloverdale Unified School District 97 School Street Cloverdale, CA 95425 Attn: Donald Sato

Subject:

Investigation at Cloverdale High School, 509 N. Cloverdale

Blvd., Cloverdale, CA

Site ID#: 2426

The North Coast Regional Water Quality Control Board has referred the subject site to the Sonoma County Public Health Department (SCPHD) for continued investigation of the unauthorized release of fuel products. SCPHD will be the lead agency and will oversee all investigative and remedial work, including issuance of monitoring well permits, providing technical assistance, conducting site inspections, and review of work proposals.

As the responsible party, you are officially notified of your obligation to investigate and remediate the subject site and provide cost recovery (see Attachment UST01/02). Please submit all work plans and reports to SCPHD with duplicates submitted to the Regional Board.

If you have any questions, please call me at (707) 525-6571, Monday through Friday, between 7:30 and 9:00 a.m.

Sincerely,

GENEVA RANDALL

Geologist

GR/ss

Enclosures: Standard Form UST01/UST02; Appendix A; Tri-Reg. Guidelines; LUST

Permit

cc: State Water Resources Control Board, Donna Schimeck

Sue Warner, North Coast Regional Water Quality Control Board

Marc Seeley, Herzog Associates, 1318 Redwood Way, Suite 200, Petaluma, CA

94954

509cloverdale.rp2

Date: June 14, 1990

ID: 24265

#### **FACILITY**

Name: Cloverdale High School

Address: 509 N. Cloverdale Blvd.

City: Cloverdale, CA 95425

Assessor's Parcel No.: 001-021-27, 28

#### **OWNER**

Name: Cloverdale Union High School District

Address: 509 N. Cloverdale Blvd.

City: Cloverdale, CA 95425

#### **OPERATOR**

Name: Cloverdale Unified School District

Address: 97 School Street

City: Cloverdale, CA 95425

Same Different

UT1

UT2

TA

If different, specify:

Rectify difference and reference source:

509cloverdale.rpi

#### state Water Resources Control Board Division of Water Quality UST Cleanup Program

#### Notice of Reimbursement When Federal Funds Are Used

Site Code: 2426 Date First Reported: 7/17/86

Site Name: Cloverdale High School Substance: 12036

Address: 509 N. Cloverdale Blvd. Petroleum: (X) Yes () No

City/State/Zip: Cloverdale, CA 95425

The following information has been provided to:

Responsible Party: Donald Sato

Company Name: Cloverdale Unified School District

Address: 97 School Street

City/State/Zip: Cloverdale, CA 95425

Whereas the Federal Petroleum Leaking Underground Storage Tank Trust Fund provides funding to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks; and whereas the direct and indirect costs of overseeing removal or remedial action at the above site are funded, in whole or in part, from the Federal Trust Fund; and whereas the above individual(s) or entity(ies) have been identified as the party or parties responsible for investigation and cleanup of the above site; YOU ARE HEREBY NOTIFIED that pursuant to Title 42 of the United States Code. Section 6991b(h)(6), the above Responsible Party or Parties shall reimburse the State Water Resources Control Board for all direct and indirect costs incurred by any and all state and local agencies while overseeing the cleanup of the above underground storage tank site, and the above Responsible Party or Parties shall make full payment of such costs within 30 days of receipt of a detailed invoice from the State Water Resources Control Board.

Contract Project Director:

enera Rondall 525-6571 Date: June 14, 1990 Telephone #

ust02(3/88)

cc: State Water Resources, Donna Schimeck

509cloverdale.ut2

Sonoma County Public Health Dept.

#### State Water Resources Control Board Division of Clean Water Programs UST Local Oversight Program

Site Code:

00002426

Date First Reported: 07/17/86

Site Name:

Cloverdale High School

Substance: 12036

Address:

Petroleum: (X) Yes ( ) No

509 Cloverdale N.

City/St./Zip: Cloverdale, CA 95425

The following information has been provided to:

Responsible Party Contact Person:

Sato, Donald

Responsible Party Contact Company: Cloverdale Unified School Dist

Address:

. .

97 School St.

City/State/Zip:

Cloverdale, CA 95425

Whereas the federal Petroleum Leaking Underground Storage Tank Trust Fund provides funding to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks; and Whereas the Legislature has authorized funds to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks; and Whereas the direct and indirect costs of overseeing removal or remedial action at the above site are funded, in whole or in part, from the federal Trust Fund; and Whereas the above individual(s) or entity(ies) have been identified as the party or parties responsible for investigation and cleanup of the above site; YOU ARE HEREBY NOTIFIED that pursuant to Title 42 of the United States Code, Section 6991b(h)(6) and Section 25360 of the Health and Safety Code, the above Responsible Party or Parties shall reimburse the State Water Resources Control Board not more than 150 percent of the total amount of site specific oversight costs actually incurred while overseeing the cleanup of the above underground storage tank site, and the above Responsible Party or Parties shall make full payment of such costs within 30 days of receipt of a detailed invoice from the State Water Resources Control Board.

Contract Project Director:

Signature

(MS) <u>525-6565</u> <u>Date</u>: January 14, 1991

Tel. #

Standard Form UST03(7/90)

cc: State Water Resources Control Board

## P 339 000 597

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED

NOT FOR INTERNATIONAL MAIL

(See Reverse)

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☆ U.S.G.P.O. 1989-234-555	Sent to Donald Sato Cloverdale Unifie Street and No. 97 School St.	d_School	Dis
S.G.P.O	P.O. State and ZIP Code Cloverdale, CA 95	425	1
ů.	Postage	5	
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10	Return Receipt showing to whom and Date Delivered		
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Print your name, address and ZIP Code here JAN 2 4 1991

HAZARDOUS MATERIALS

PUBLIC HEALTH DEPARTMENT COUNTY OF SONOMA

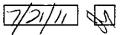
HAZARDOUS MATERIALS SECTION Santa Rosa, Calitornia 95403-2087 1030 Center Drive - Suite A 509 Cloverdale N.

PS Form 3811, October 1990 Signature (Addressee) the article number. back if space does not permit. that we can return this card to you SENDER Write "Return Receipt Requested" on the mailpiece next to Article Addressed to: Attach this form to the front of the mailpiece, or on the Print your name and address on the reverse of this form so Complete items 3, and 4a & b. Complete items 1 and/or 2 for additional services Cloverdale, CA 95425 97 School St. Cloverdale Unified School Dist.4b. Service Type Donald Sato ± U.S. GPO: 1990—273-861 7. Date of Deliver 8. Addressee's Address (Only if requested XI. Certified 4a. Article Number J Express Mail and fee is paid) DOMESTIC RETURN RECEIPT P 339 000 597 iee): Consult postmaster for fee following services (for an extra ☐ Restricted Delivery 1. Addressee's Address also wish to receive the Insured 000 Return Receipt for Merchandise

## SONOMA COUNTY DEPARTMENT OF HEALTH SERVICES- ENVIRONMENTAL HEALTH & SAFETY LEAKING UNDERGROUND STORAGE TANK LOCAL OVERSIGHT PROGRAM

#### Closure Checklist #2 — Site Closure (Final)

Site Address	s <	09 C	(Jue)	-le		•	·		Program : LOP # (D	# PR00 <u>/</u> DE ID) 2	13846
Site Name	((0	クノシートノ	le Hi	5L 5C1	ool			PE: 1530	•	, —	T/S: 5830
Date Completed	Revd	•					Caseworke	r DB	BY		
6/15/11		Regional B	Soard has r	eturned CC	S with no i	mpediment	s to closure				
6/14/01		RP has been (under pern	n notified w nit of the De	ith pending epartment) a	letter of the nd/or dispos	site status a se of waste r	nd advised on aterials if r	of the need of the necessary	to destroy i	nonitoring	g wells
7/6/11		Wells (mor	n/rem) have	been destr	oyed. Repo	rt on destru	ction is acc	eptable and	d ESI has l	oeen uplo	aded.
2/18/11	<b>~</b>	-Site inspect waste, waste					en destroyed	d and that al	ll remediati	ion equipr	nent
7/13/11	27						d. Make sur				
7/13/11		Establish a	closure da	te and comp	olete RACC	C. Give you	rself adequa	ate time to	complete c	losure.7	122111
1/13/11							s to this poi				
7/13/11		Submit RA	CC to Sup	ervisor/PM	for review.	Give to PN	A in Superv	isor's abse	nce.		
7/410		Supervisor See above fo				ctor for sig	nature.				
7/3/11							t all MWs h site visit mu				
1/21/11		Complete I	RFA for file	and LOP	OAII, and u	ıpdate Geot	rocker entri	es.			
7/21/11		Scan RAC	C when sig	ned and CC	CS in pdf an	d upload to	Geotracke	r. See <i>Geoti</i>	racker Clos	ure Check	dist .
7/13/11		Obtain a C	hronology	of Activitie	s from Clif	f and check	all logs ent	ries have b	een made.		
7/13/11		Do Spell C	theck and a	djust page l	oreaks to re	ady the con	nputer SAL	for final pr	rintout.		
5/21/11		Complete lo Print log an	og with site id file origin	closure date al docs in C	on first and onfidential	l last pages. Envelope.  ì	No other cop	oies should	be made or	filed else	where.
7/2/11		Change log S:\\lust\lust		• .	y.doc for cl	osures. (- <i>r</i> .a	doc for refe	rrals). Move	e computer	log to the	÷
7/21/11		Complete a	all Geotracl	er updates.	See Geotre	acker Closi	ıre Checklis	st.			
7/2/11		File all out	standing do	cuments.							
7/22/11		Mail RAC	C and CCS	as follows:	<u> </u>	/	V		#14926	9//	·
/ /	Document	RPs V	Consul- tant	SB 562	SWRCB FUND	Reg. Board	CUPA Agency	File	₽ <b>®</b>	Walt's Reader	
	RACC	Original	Сору	Сору	Сору	Сору	Сору	Сору	Сору	Сору	<del></del> -
	CCS	Conv	Conv	Conv		Conv	Conv	Original	Conv	Conv	



The site file tab(s) are marked with the site closure date and the file is boxed for *Imaging* and subsequent archiving. Peer review.

ev. 11/18/10 2nd of 3 Closure Checklists

# SONOMA COUNTY DEPARTMENT OF HEALTH SERVICES-ENVIRONMENTAL HEALTH DIVISION LEAKING UNDERGROUND STORAGE TANK LOCAL OVERSIGHT PROGRAM

	Geotracker Closure Check	dist	13846
Site Address	304 ( (verle	Pro LO	ogram # PR00 13846 P# 2426
Site Name	100. Hyl School	PE: 1530	LUST Code: 300 T/S: 5830
		Caseworker	85/BV
See also Initia reverse side	Site Record Tasks on LOP GeoTracker Case Update I	procedures and c	other required fields on
Date Completed Rev	d		
7/22/11	Activities Report Regulatory Action. Choose "Closure and include date. Use "None" for Document #. Clear a	– No Further Act ny outstanding C	tion" from pulldown menu Compliance Dates
7/21/11	Activities Report Upload Regulatory Action Document	s. Upload PDF f	ile of RACC and CCS.
7/13/11	Cleanup Action. Enter remedial action information		
7/13/11	Closure Review. Check Yes-Site is ready for closure.		
7/13/11 19	Community Involvement. Indicate Public Participation Community Involvement Documents (Notices).	Category, Date a	and Desc. Upload
-1/22/11	Contacts. Change LOP contact to "LOP Closed in RB0 sites only: Change RB01 contact to "Sonoma County I Check that all RPs are entered and enter if necessary.	01(or RB02) —C LOP Closed Site'	General Contact" Region 1
7/13/11	GW Monitoring Frequency. Check No GW Monitoring	g at site.	
1 11 6 11 11 1 1	Project Information. Change File Location to "Local A		se". Check other data.
7/21/1,	Project Information Status. Enter "Case Closed" with	Begin date.	
7/12/11	Project Information Survey XY. Enter GPS info if avail View and correct if necessary.		heck site location on Map
2/13/11	Risk Information. Enter all required fields. Enter "Not Description" if there are no impacted drinking wells.	Applicable" for Complete Land U	"Impacted Drinking Sources fields.
7/13/11	Electronic Submittals. Check and accept all appropriat  Analytical NA Boring Log PDF  GEO_MAP	te GeoTracker su	bmittals.
	□ GEO_XY ^VA □ GEO_Z <i>^</i> VA		

LOP 10-11 Contract Atracker Field Requirements

LOP 10-11 Contract tracker Field Requirements					
GeoTracker 2 Screen	GeoTracker 2 Field Name				
Project Information	Site Type				
Project Information	Status				
Project Information	Status Date				
Proiect Information	Funding for Cleanup				
Project Information	File Location				
Project Information	RP Identification				
Project Information	Site History				
Project Information	Case Number				
Project Information	Cleanup Oversight Agency				
Project Information	Lead				
Project Information	Lead Date				
Project Information	Latitude/Longitude				
Risk Information	Pologgo Typo				
Risk Information	Release Type Contaminant(s) of Concern				
Risk Information	Redevelopment Planned (Yes/No)				
Risk Information	Current Land Use				
Risk Information	Beneficial Use				
Risk Information	Potential Media of Concern				
Risk Information	# Impacted Drinking Water Wells				
Risk Information	Report Date				
Risk Information	Discharge Cause				
Risk Information	Discharge Source				
Facility / Site Address	Is this Project a Residence				
Facility / Site Address	Proiect Name				
Eacility / Site Address	Street #				
Facility / Site Address	Street Name / Location				
Facility / Site Address	City				
Facility / Site Address	Zip				
Facility / Site Address	County				
Contacts/Search to Add Contact	Regional Board Contact				
Contacts/Search to Add	Legally Named Responsible Party				
Contacts/Search to Add Contact	Responsible Party Contact				
Contacts/Search to Add Contact	Oversight Agency and Regional Board Contact				
Contacts/Search to Add	Begin Date (for each contact)				
Contacts/Search to Add	End Date (for each contact that is historical)				
Activities Report/Regulatory	Type(Deed Restriction, CAOs, MRPs, 13267				
Activities Report/Regulatory	Issue DateType				
Activities Report/Compliance Rsp	Type (Workplans Reports Other)				
Activities Report/Compliance Rsp	Received Date				
Activities Report/Compliance Rsp	Reviewed (Y/N)				
Cleanup Action/Insert New	Method				
Cleanup Action/Insert New	Removal / Remedial				
Cleanup Action/Insert New	Action Begin Date				
Cleanup Action/Insert New	Action End Date				
Cleanup Action/Insert New	Est. Completion Date				
Cleanup Action/Insert New	Treated Phase				
Cleanup Action/Insert New	Volume Treated				
Cleanup Action/Insert New	Contaminant Mass Removed				
Community Involvement	Public Participation Category/Date				
Community Involvement	Public Participation Description				
Community Involvement	Public Participation/Document Type/Date				
Proiect IDs/Names/APNs	Project ID Type				
Troieut Ios/Names/AFNS	Project ID Type				
Site Documents	Upload to New Regulatory Action				
Site Documents	Upload RP/3rd Party Document				
· · · · · · · · · · · · · · · · · · ·	A normal resource to the contract of the Contr				

# SONOMA COUNTY DEPARTMENT OF HEALTH SERVICES- ENVIRONMENTAL HEALTH LEAKING UNDERGROUND STORAGE TANK LOCAL OVERSIGHT PROGRAM

## Closure Checklist #1 — Closure Recommendation

Site Address	-<	504 (1	we.	Lle				was pro-	
Ca	asewo	orker & b/13V	Record # P	R00 13846 P	E: 1530 DE ID	# <u>2426</u> LU	JST Code: 300	T/S: 5830	
Date Complete Re	ev'a	·							
4/4/07	1	MTBE and all CO	C's have bee	en tested where a	ppropriate.				
4 N2.11.	D 1	Unauthorized Rele	ase Form ha	s been complete	d and is on file	(section 2)	-		
7/13/1		All contaminated n							
7/13/11	-	EDFs have been su	SEOWELL,	, Bornig Log, W	ELL_MIFO, R	eport.		\	P, GEO
1/A		Two copies of clos	ure supplem	ent have been su	ibmitted by co	nsultant for RB	1 sites per F	act Sheet	
(1-11-01	(	Complete Case Clo	osure Summ	ary (CCS). Add	initials next to	пате.			
dula	(	Complete Recomm	endation let	tter to Regional I	Board with PE	PG signature.			
4/29/09	(	Complete Letter to	Building O	fficial and PRM	D Well and Se	ptic if there is t	esidual cont	amination.	
ę	<b>)</b>	CCS, Recommend	dation, Buil	lding Official ar	nd PRMD lett	ers are peer re	eviewed.		
Miller	(	CCS (w/ suppleme	nt), Recomi	nendation, Build	ling Official ar	nd PRMD letter	s are submitt	ed to Supe	rvisor.
Ulula	;	Supervisor has rev	iewed the cl	osure recommen	dation letter ar	nd the CCS. Su	pervisor sign		
Cilila		The <b>original CCS</b> Log & Geotracker if they do not resp	entries mad	e stating CCS sig	ter sent to RE	w/ copies to Ited to the RB. M	RP. RB advis Iaintain tickle	ed by phore or file and i	ne. Site notify RE
		Distribution is as f	ollows:					<u> </u>	T
		Document	RPs/IPs	SWRCB-CF	Reg Board	Consultant	Bldg Off	PRMD	File
		Rec Letter	Сору	Сору	Original	Сору	Copy*	Copy*	Сору
		CCS	Сору	Сору	Original	Сору	Copy*	Copy*	Сору
		* Required for res	idual contan	nination					
4/11/01		Cliff is notified of	recommend	lation for closure	tracking repor	<b>t.</b>			
1/5/0	X	Property owner Copending site closu	ertification L re. If not, let	List is on file and tter is sent to acti	l Active RP has ive RP with M	s certified that o achado Forms 2	owners have 2F and 3F as	been notifi needed.	ed of
4/10/01/4/4		Notice of Pending							
411901		Update Geotracke letter. Update other	r Enforceme	ent/Regulatory A	ction with "LC				upload

1st of 3 closure checklists

			Site Clos	ure Checklis	st	736 J'	A.	
Site Address_	<u> </u>	> 5	( (sue- >	e 2 ( 131	1	Site #_	7~7	6
Date Completed								
4-9.01			e is ready for closu ecially in SFBRW		ontaminated ma	iterial has been	removed fro	m the
4-9-01	Recommendati processed by c	on letter to F aseworker or	Regional Board (R Clerk-Typist, pro	B) and Case Clo	sure Summary eworker, and	(CCS) are con are submitted t	npleted, word o Supervisor.	<b>i</b>
4-11-01	Supervisor has Director so tha	reviewed the	e closure recomme n be signed. Direc	endation letter ar tor signs CCS ar	nd the CCS, and returns the d	d has submitted locuments to th	d documents se caseworke	to r.
4-11-01	entry made sta notified if they	ting that the	ent to the RB with CCS has been sign and within 30 days	ned and mailed to	the RB. Main	itain tickler file	so that the F	CB is
4-11-01			on List is on file an sent to active RP				en notified o	f pendin
6-19.01	Fee title owner	rs have been	notified by SCEH	S of pending clo	sure in accorda	ance with Mach	nado Bill.	
6-19-11	Owners have n	io objections	to closure, object	ions are without	reason, or they	have not respond	onded within	20 days.
6-15-01	1 "		ned CCS with co					
6-2001	Department) a	nd/or dispose	site status and ad- e of waste materia	ls if necessary.				
	time to do this materials are p	is when the coperly disp	ity, and a Chronolom MW Application is osed, and the site loft at this time.	is approved. All	MWs are dest	royed, investig	ation and cle	anup
	All documents Activities can computer SAL	be requested	d the SAL has bee from Linelle if ne intout.	n reconciled wit eeded. Do Spell	h the Chronolo Check and adju	gy. A second of the second of	Chronology of to ready the	of old
	closure docum	ient is word- ie caseworke	ACC), and an RFA processed and the er or backup in hise.	closure date is k	лоwn for certa	in. The closure	: letter must b	je
	Director has s the Clerk-Typ	igned the clo	sure letter and return the documents, in	urns the closure estructions must	letter and the C be clearly prov	CCS to the case rided by the cas	worker for m seworker.	ailing. I
_	Distribution is	as follows:						
	Document	RPs	SB562 (if residual contam)	SWRCB-CF	Reg. Board	CUPA Agy (L.Anderson)_	File	
	Closure Letter	Originals	Сору	Сору	Сору	Сору	Copy	
	CCS	Сору	Сору			Copy	Original	
	to the "lustlog	s\closed" dir	een entered on the ectory with a ".y" le. Original logs	or ".ref" extension	on as appropria	te. A copy of	the Site Log	has been

Public Health Division
Mark Netherda, MD
Acting Health Officer and Division Director
Environmental Health & Safety
Walter L Kruse, REHS, MA
Director of Environmental Health

July 22, 2011



Ms. Claudia Rosatti, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re:

509 Cloverdale Boulevard North, Cloverdale

Site # 00002426, NCRWQCB # 1TSO108

Dear Ms. Rosatti:

This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release at the site is required.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

WALTER L. KRUSE, REHS, MA Director of Environmental Health



#### **Case Closure Summary**

DEPARTMENT OF HEALTH SERVICE

## Leaking Underground Fuel Storage Tank Program 15 15 15

County Dept. Health Services Address: 1030 Center Dr., Suite A

Agency name: Sonoma County Dept. Health Services	Address: 1030 Center Dr., Suite A
City/State/Zip: Santa Rosa, CA 95403	Phone: (707) 565-6565
Responsible staff person: Darcy Bering	Title: Environmental Health Specialist

l. Case Ir	nformation	·						
Site facility	name: Cloverdale	High School						
Site facility	address: 509 Clo	verdale Blvd., Cloverd	dale					
RB LUSTIS	S# 1TSO108	SWEEPS # NA	LOP #00002426	URF filing date: 07/17/86	Local # NA			
	Responsible	party		Address				
Cloverdale	Unified School Dis	trict,	97 School Street, C	(707) 894-1920				
Attn: Dr	r. Mike Carey							
				· · · · · · · · · · · · · · · · · · ·				
Tank#	Size in gal.	Contents	; Clo	sed-in-place/removed?	Date			

Tank#	Size in gal.	Contents	Closed-in-place/removed?	Date
1 each	350	Gasoline	Removed	07/17/86
1 each	1000	Diesel	Removed	07/17/86
				1

#### III. Release and Site Characterization Information

**Agency Information** 

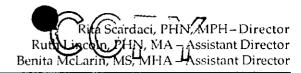
Cause and type	e of release Unknow	1			
Site characteriz	ration complete? Yes	5	•	Date approved by oversight agency: April 10, 20	01
MW installed? Yes Number: 3				Proper screened interval: Screens are low during groundwater table	seasonally elevated
Highest GW de	pth BGS: 0.75' Lov	vest d	epth: 17.5'	Flow direction: East-northeast to southeast	
Most sensitive	current use: Groundv	ater r	echarge		·
Are drinking wa	ater wells affected?	lo		Aquifer name: Unknown	
Is surface wate	r affected? No			Nearest SW name: Russian River approx. 2000'	east of the site.
Off-site benefic	ial use impacts (addre	esses/	ocations): No	ne	
Report(s) on fil	e? Yes	Whe	re is report(s)	filed: Sonoma County Department of Health Service	es
Treatment and	Disposal of Affected I	Materia	al		
Material	Amount (include u	nits)	Ac	tion (treatment or disposal w/ destination)	Date
Tank	2 each		Disposed at	H & H Ship Services, San Francisco	07-17-86, 07-30-86
Piping ·	Unknown	٠	~	teres en la companya de la companya	
Free product	N/A				
Soil	20 tons		Transported	by Cross Trucking to Altamont Landfill, Livermore	12-6-00
				n drums & transported by Maximum Oil Service to ecovery, Oakland	12-5-00
Barrels	0				



#### **Case Closure Summary**

Release and Site Characterization Information (continued) Site Address: 509 Cloverdale Blvd, Cloverdale Maximum Documented Contaminant Concentrations—Before and After Cleanup Soil (ppm) Water (ppm) Soil (ppm) Water (ppm) Contaminant Contaminant Before After* Before After Before After Before After TPH (gas) 1700^M NS 1.3 ND Xylene ND NS .00056 ND 3200 M 7.4 TPH (diesel) NS ND Ethylbenzene ND NS ND NΩ .0005 Benzene ND NS ND TPH Motor Oil 150^S NS ND NS Toluene ND NS ND ND Heavy metals See (1) NS NS See (2) Lead 44^S NS ND ND **MTBE** NS ND NS NS Comments (depth of remediation, etc.): NS = Not Sampled, ND = Non Detect No groundwater encountered during tank removal. Tank removal soil results in ppm: 880 TPHg, 730 TPHd. (1) Cd 6ppm, Cr 70ppm, Zn .84ppm MFrom MW6 construction 3/25/91 at 5.5' Stockpile sample result. (2) Cd ND, Cr.11ppm, Zn.14ppm "Before" results are the highest soil and groundwater sample results *Five soil borings were constructed within 10-20' around the former tank location in January 1991. Soil sample result from the borings were ND for all constituents in four of the five borings. One of the five soil borings had 32ppm TPHd at 16'. MW4 & MW6 have been ND for all constituents the last 4 quarters of sampling. Closure Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes Does corrective action protect public health for current land use? Yes Site management requirements: Contingency planning is required if excavating in the area of MW6. No water wells may be Deat notified, 127/15/11 constructed in the area of the release, unless the residual contamination is evaluated further. Should corrective action be reviewed if land use changes? No Monitoring wells decommissioned? Number retained: 3 Number decommissioned: N/A List enforcement actions taken: None List enforcement actions rescinded: N/A **Local Agency Representative Data** Name: Jonathan J. Krug Title: Director of Environmental Health Signature: RWQCB4Notification Concur Date submitted to RB: RB Response: RWQCB staff name: > Title: Date: VII. Additional Comments, Data, etc. N/A = Not Applicable There are no reported sensitive receptors within 1000' of the site. Monitoring wells will be destroyed under permit from this Department upon NCRWQCB closure concurrence.





April 29, 2009

#### Environmental Health Division

Walter L. Kruse - Director

City of Cloverdale Building and Planning Department City Hall Annex 126 North Cloverdale Boulevard Cloverdale, CA 95425

Re:

509 Cloverdale Boulevard North, Cloverdale Leaking Underground Storage Tank Site

A copy of a Case Closure Summary signed by the Regional Water Quality Control Board concurring with closure of a Leaking Underground Storage Tank site is being forwarded to your agency because residual contamination, which may have an impact on site improvements, remains on the site. Additionally, one of the three monitoring wells at the site is located under Classroom 23 and is not going to be destroyed prior to final site closure. Should site conditions change and Classroom 23 is ever moved or destroyed, the monitoring well will need to be found and properly destroyed.

In spite of the residual contamination and the monitoring well under Classroom 23, the site is being closed because this contamination is not likely to adversely affect human health or the environment.

This Department can assist you with further information if required. For some property development proposals, evaluation by a qualified environmental consultant, additional investigation, or additional remediation may be recommended.

Your concerns regarding the site closure are appreciated. Please contact me at (707) 565-6571 if you have any questions.

Sincerely,

**Darcy Bering** 

Senior Environmental Health Specialist

Sonoma County Leaking Underground Storage Tank Program

db

Enclosure

cc: Ms. Claudia Rosatti, Superintendent, Cloverdale Unified School District

Mr. Marc Seeley, 1695 Willowside Road, Santa Rosa, CA 95401

George Goobanoff & Associates, 218 Burgandy Road, Healdsburg, CA 95448

Ms. Sharon Richardson, Maintenance & Operations Supervisor, Cloverdale Unified

School District

Rita Scardaci, PHN, MPH-Director Ruth Lincoln, PHN, MA – Assistant Director Benita McLarin, MS, MHA - Assistant Director

#### Environmental Health Division

Walter L. Kruse - Director

## Notice of Pending Action Leaking Underground Storage Tank Site

Date:

April 28, 2009

Site Address:

509 Cloverdale Boulevard North, Cloverdale

LOP #:

00002426

Regional Board #:

1TSO108

The referenced site is under the oversight of this Department for investigation and cleanup of a petroleum release from underground storage tank(s). Pursuant to California Code of Regulations Title 23, Division 3, Chapter 16, Article 11, Section 2728 and to Department policy, public participation notice is hereby made of the following pending action on the referenced site:

#### Site Closure

This Department intends to close the investigation and cleanup of the referenced site upon State Regional Board closure concurrence. The destruction of monitoring wells, disposal of contaminated materials, and other tasks associated with the investigation and cleanup of the site may still be necessary prior to closure.

The above noted action may be taken after 30 days of the date of this notice if this Department does not receive comment giving cause to not proceed. The public is advised to contact the site caseworker noted below of any reason or reasons the action noted above should not be taken. This Department will review the merits of all comments received within 30 days of this notification and take measures to halt or modify the proposed action if warranted.

Notification is made by Darcy Bering (Caseworker)

Telephone: (707) 565-6571

c:

North Coast Regional Water Quality Control Board

Mark A. Kostielney - Director

#### Environmental Health Division

June 19, 2001

Jonathan J. Krug - Director

Mr. Mike Carey, Superintendent Cloverdale Unified School District 97 School Street Cloverdale, CA 95425

Re:

509 North Cloverdale Boulevard, Cloverdale

Leaking Underground Storage Tank Site

SCDHS-EHD Site #00002426, NCRWQCB Site #1TSO108

Dear Mr. Carey:

This Department has reviewed the referenced site file and pertinent documents as part of the site closure process. Site closure has been recommended to the Regional Water Board and the Board has concurred with closing the site. However, a Remedial Action Completion Certification cannot be issued at this time for the reason noted below.

#### Pending Item:

1. The monitoring wells have not been properly destroyed under permit from this Department. Please arrange, or have your consultant arrange, for an appropriately licensed Well Driller Contractor to submit a Monitoring Well Application. An appropriate procedure to properly abandon any monitoring wells must also be submitted by the well driller or your consultant.

Should you have any questions, please do not hesitate to contact me at (707) 565-6571.

Sincerely,

Darcy M. Bering

Registered Environmental Health Specialist

Leaking Underground Storage Tank

Local Oversight Program

db

cc:

Mr. Luis Rivera, NCRWQCB

Mr. David Charter, SWRCB Cleanup Fund

Mr. Marc Seeley, George Goobanoff Associates, 1695 Willowside Road,

Santa Rosa, CA 95401

#### Environmental Health Division

Jonathan J. Krug - Director

April 10, 2001

Luis Rivera
California Regional Water Quality Control Board
North Coast Region
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403

Recommendation for Case Closure for Site located at 509 Cloverdale Boulevard North, Cloverdale
SCDHS-EHD Site # 00002426, NCRWQCB Site #1TSO108

Dear Mr. Rivera:

After reviewing the case file for the Leaking Underground Storage Tank site located at 509 Cloverdale Boulevard North, Cloverdale, it does not appear that further monitoring, investigation or remedial actions are necessary at this site to protect the beneficial uses of the waters of the State of California. Therefore, Sonoma County Department of Health Services, Environmental Health Division, is submitting the subject site Case Closure Summary to your agency for final review and case closure concurrence. The existing monitoring wells will be abandoned under permit of this Department upon your agency's concurrence with site closure.

Please do not hesitate to contact me at (707) 565-6571 for further information if required.

Sincerely,

DARCY M. BERING

Registered Environmental Health Specialist Leaking Underground Storage Tank Local Oversight Program

db

Enclosure

cc: Dr. Mike Carey, Cloverdale Unified School District, 97 School St., Cloverdale, CA 95425 George Goobanoff Associates, 218 Burgundy Road, Healdsburg, CA 95448

## **Case Closure Summary**

		Leakin	g Undergro	und Fue	el Stora	ge Tank Program			
Agency Information					^ d denoe	1020 Cantas Da	Civita A	Date: April 10, 2001	
Agency name: Sonoma County Dept. Health Services City/State/Zip: Santa Rosa, CA 95403				ces	Address: 1030 Center Dr., Suite A				
			,		Phone:	(707) 565-6565			
	le staff person:	Darcy Bering			Title: En	vironmental Health Sp	ecialist		
	name: Cloverda	la High School				V-2	<u></u>		
	address: 509 C		Cloverdale						
	S # 1TSO108		Ī	\D #0000		LIDE Sine data, 07/4	7/00		
ND LUSTIN		SWEEPS	5#NA LC	OP #00002	420	URF filing date: 07/1	//86	Local # NA	
01	Responsib					Address		Phone number	
	Unified School D	HSTRICT,	97	School S	treet, Clo	verdale, CA 95425		(707) 894-1920	
Attn: D	r. Mike Carey	•							
				<del></del>		· ·			
		·				****			
Tank#	Ciac in ==1		Cantanta		City	d in almost to			
	Size in gal.			ontents Closed-in-place/removed?			Date		
1 each	350		Gasoline			Removed		07/17/86	
1 each	1 each 1000 Diesel Removed			Removed		07/17/86			
				<del></del>		· · · · · ·			
L				<del></del>	<u> </u>	<del></del>	<u> </u>	<del> </del>	
	e and Site Chara	• •	rmation			<u> </u>			
	type of release			<b></b>					
Prope					oversight agency: Aprinterval: Screens are				
MW installed? Yes Number: 3					groundwater	-	,		
Highest G\	Highest GW depth BGS: 0.75' Lowest depth: 17.5' Flow of			Flow dire	ection: E	ast-northeast to southe	ast		
Most sens	itive current use:	Groundwater r	echarge					AP	
Are drinking water wells affected? No Aqu				Aquifer	name: U	Inknown			
Is surface water affected? No Ne				Nearest	Nearest SW name: Russian River approx. 2000' east of the site.				
Off-site be	neficial use impa	cts (addresses/	locations): No	ne					
Report(s) on file? Yes Where is report(s) filed: Sonoma County				unty Department of Hea	ılth Servic	es			
Treatment	and Disposal of	Affected Materia	ai						
Material	Amount (	include units)	Action (treatment or disposal w/ destination)			Date			
Tank	2	each	Disposed at H & H Ship Services, San Francisco			07-17-86, 07-30-86			
Piping	Un	known		U O O O O O O O O O O O O O O O O O O O					
Free produ	uct	N/A							
Soil		O tons	Transported	by Cross	Trucking	to Altamont Landfill, Li	vermore	12-6-00	
Groundwa		gallons	<del>                                     </del>	n drums &	transported by Maximum Oil Service to		12-5-00		
Barrels		0	/ Altesian On N		Sindila				

#### **Case Closure Summary**

Release and Site Characterization Information (continued) Site Address: 509 Cloverdale Blvd, Cloverdale Maximum Documented Contaminant Concentrations—Before and After Cleanup Water (ppm) Soil (ppm) Soil (ppm) Water (ppm) Contaminant Contaminant Before After* Before After Before After Before After 1700^M TPH (gas) NS ND ND NS .00056 ND 1.3 **Xylene** TPH (diesel) 3200 M NS 7.4 ND ND NS ND Ethylbenzene ND Benzene NS .0005ND 150^s NS ND **TPH Motor Oil** NS ND Toluene ND NS ND ND Heavy metals NS NS See (1) See (2) Lead 44S ND ND NS ND MTBE NS NS NS Comments (depth of remediation, etc.); NS = Not Sampled, ND = Non Detect No groundwater encountered during tank removal. Tank removal soil results in ppm: 880 TPHg, 730 TPHd. (1) Cd 6ppm, Cr 70ppm, Zn .84ppm MFrom MW6 construction 3/25/91 at 5.5' Stockpile sample result. (2) Cd ND, Cr.11ppm, Zn.14ppm "Before" results are the highest soil and groundwater sample results *Five soil borings were constructed within 10-20' around the former tank location in January 1991. Soil sample result from the borings were ND for all constituents in four of the five borings. One of the five soil borings had 32ppm TPHd at 16'. MW4 & MW6 have been ND for all constituents the last 4 quarters of sampling. Closure Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes Does corrective action protect public health for current land use? Yes Site management requirements: Contingency planning is required if excavating in the area of MW6. No water wells may be constructed in the area of the release, unless the residual contamination is evaluated further. Should corrective action be reviewed if land use changes? No Number decommissioned: N/A Monitoring wells decommissioned? Number retained: 3 No List enforcement actions taken: None List enforcement actions rescinded: N/A **Local Agency Representative Data** Name: Jonathan J. Krug Title: Director of Environmental Health Signature: Date: RWQCB4Notification Date submitted to RB: RB Response: RWQCB staff name: Date: VII. Additional Comments, Data, etc. N/A = Not Applicable There are no reported sensitive receptors within 1000' of the site. Monitoring wells will be destroyed under permit from this Department upon NCRWQCB closure concurrence.





## Environmental Health Division

Jonathan J. Krug - Director

## Notice of Pending Action on Leaking Underground Storage Tank Site

	Idress: 509 Clovertale Blok. North Clovertale
Sonom	a County Environmental Health Site #
Region	al Board Site # 1 T S O 10 ×
petrole Title 2	ferenced site is under the oversight of this Department for investigation and cleanup of a sum release from underground storage tank(s). Pursuant to California Code of Regulations 3, Division 3, Chapter 16, Article 11, Section 2728 and to Department policy, public pation notice is hereby made of the following pending action on the referenced site.
JX.	Site Closure.
	This Department intends to close the investigation and cleanup of the referenced site upon State Regional Board closure concurrence. The destruction of monitoring wells, disposal of contaminated materials, and other tasks associated with the investigation and cleanup of the site may still be necessary prior to closure.
	Corrective Action.
. :	A Corrective Action Plan for the referenced site has been submitted to this Department and is either being considered for acceptance, or has already been accepted.
does n casewo This D	ove noted action may be taken after 30 days of the date of this notice if this Department of receive comment giving cause to not proceed. The public is advised to contact the site orker noted below of any reason or reasons the action noted above should not be taken. Department will review the merits of all comments received within 30 days of this eation and take measures to halt or modify the proposed action if warranted.
Notific	cation is made by Sorry
	Caseworker Caseworker



Mike Carey, Ed. D. District Superintendent **Board of Trustees** 

Dick Johnson, President Linda Pardini, Clerk Cindy Bogner Tom Collingwood Scott Jackson

January 3, 2000

DEPARTMENT OF

JAN 5 2000

Cliff Ives Senior Environmental Health Specialist Department of Health Services 1030 Center Drive, Suite A Santa Rosa, CA 95403-2067

**ENVIRONMENTAL HEALTH DIVISION** 

Dear Mr. Ives:

Thank you for your letter that was received by the District on December 20, 1999. However, the schools were on winter break and I didn't have a chance to actually read the letter until our return, on January 3, 2000.

Therefore, I am requesting that the 20-day deadline begin as of January 3, 2000. Also, you mentioned that there were enclosures (1) Certified List of Record Fee Title Owners Form and (2) Certification Form of Notification to Record Fee Title Owners of Proposed Action. Unfortunately, we did not receive those enclosures. Could you please send those or I would be glad to pick those up at your office.

However, I can tell you that the school district has been the sole owner of the property and there have been no leaseholders since at least 1935.

Thanks very much.

Sincerely,

Mike Carey, Ed.D Superintendent-

Status	Complete	Received	Complete
Name	ale	CLAUDIA	1 1
Element 🚅 Received Date   Date Service -   Site Address 🛫   Name -   Status -     S. 🐑 📻	509 N Cloverda	509 N CLAUDIA	509 N Cloverdale Cloverdale
Date Service	-   ##   12/17/1999		## 7/13/2011
Dat	##		##
Received Date	8/22/1989	4/20/2007	6/14/2011
Program/Element 🚞	First Well	15 LOP - Geotracker	129 14 Drilling - Well Destruct 6/14/2011
<u>D</u>	14	15	14 30
DATAEASE DATAE Re Facility ID	SR FA0040041	5319 SR FA0040040	SR FA0003429
Re	SR	S S	S S
DATAE	117	5319	
DATAEASE	2426	2426	

AZON

For Office Use Only

HazMat 4 COUNTY OF SONOMA PUBLIC HEALTH DEPT. - HAZMAT SECTION Receipt Number 13577 11 2435 Professional Drive, Suite A. Santa Rosa, CA 95403 (707) 527-1164 Date of Payment 2018 Application No. APPLICATION FOR MONITORING WELL PERMIT LUST No. (Allow two weeks for agency review/comment prior to final approval.) On-Site Well: V No. 3 (Z Off-Site Well: No. Submit: Legal Right-of-Entry/Off-Site Well Address On-Site Address: 509 N. Cloverdale Blvd Cloverdale CA On-Site Owner: Cloverdale Unified School District Phone: (707) 894-2548 Address: 97 School St. Clovendale, CA APP: Responsible Party: Same Phone: Address: Consultant: Herzog Assoc. Phone: (707) 523-3880 Address: 3000 Cleveland Ave Suite 200 cleveland Ave Suite 1/1ype: 6861-1014

Brilling Contractor: RNL Enterprises Santa Resa, CA
Phone: (707) 878-2774 Address: PO Box 5 Dillon Beach CA C-57 License 1: 336582 Type of Work: V Initial Investigation 3 # Wells / Subsequent Investigation # Wells / Destruct # Wells 6W Well ID Number(s): MW-4 thru 6 **Groundwater Investigation Due To:** ✓ Underground Tank ___ Surface Impoundment ___ Surface Disposal Practice Specify involved industry: _____ ___ Baseline Study ___ Other_____ Well Type: Mon. Well __ Recovery Extraction Well __ Geol. Boring __ Injection Well __ Soil Sas Survey __ Other Well Depth: 46-50 Perforated Intervals: 30-50 Chemical Constituents Suspected: Grasoline, Diesel Disposal Method for Soil Cuttings: Covered druns Disposal Method for Development Mater: Covered druns Method of Well Development: bailer Drilling Method: hollow stem anger Application sust include: 1) Time Schedule 2) Plot Plan 3) Construction Diagram Details & Proposal 4) Site Safety Plan
(See F.H. Instruction 3-87)

See 1295 Washington

Well abandonment method:

In addition, all monitoring wells must include identification system affixed to interior surface:

 Well Identification 2) Well Type 3) Well Depth 4) Well Casing Diameter 5) Perforated Intervals Well identification number and well type shall be <u>affixed</u> to the <u>exterior surface</u> security structure. Construction Proposed: Borehole diameter: 10-12" Screen: Size: .0 \( \text{Length}; \( Z0-30 \) Casing: Diameter: 4" Gauge: Sch. 40 Material: Pvc Conductor: No Double Sand Pack: No Size: Conductor Casing: 200 If yes, specific details of construction must be attached. Joints must be threaded--no glue. Annular Space: Size: 3" Depth of Seal: ~5' Concrete: Grout: Neat Cement: Bentonite/Cement Slurry: Is well located within an existing public water system boundary: ___ Yes ___ No _ Name:_ RWOCB Signature (required when RWOCB is lead agency): OK par Mary Curry NORKHEN'S COMPENSATION CERTIFICATE I hereby agree to comply with all laws and regulations of the County of Sonoma and State of California pertaining to water A currently effective certificate of Workmen's well construction. I will telephone (707) 527-1164 to notify Compensation Insurance coverage is on file with this office, made out in the name of the Sonoma County Public the Haz Mat Sanitarian when I am commencing this work. I will furnish the Public Health Officer and the owner a legible copy Health Department. of the State Water Well Driller's Report within 15 days in ___ I certify that in the performance of the work for which order to obtain final approval on this well. I acknowledge that the application will become a permit only after site this permit is issued I shall not employ any person in any approval and payment of fee. I understand that this permit is manner so as to become subject to the Workmen's not transferable and expires one year from date of issuance. Compensation laws of California. Insurance Carrier State Fund Policy 1092-60054-88 (Signature of Well (Signature of Consultant) FOR DEFICE USE ONLY - ENVIRONMENTAL HEALTH SERVICE Construction Approved by Indicate on attached plot plan the exact location of well(s) with respect to the following items: property lines, water bodies or water courses, drainage pattern, roads, existing wells, sewer main and laterals and private sewage disposal systems or other sources of contamination or pollution. INCLUDE DIMENSIONS. The validity of this permit depends upon the accuracy of the information provided by the applicant. provided by the applicant. Drilling Schedule: - Contain auger Sept. 7: 8, 1989 convell.fra Rev. 07/25/88

COUNTY OF SONOMA — DEPARTMENT OF HEALTH SERVICES ENVIRONMENTAL HEALTH DIVISION 475 Aviation Blvd., Suite 220, Santa Rosa, CA 95403 Phone (707) 565-6565 Fax (707) 565-6525 www.sonoma-county.org

APPLICATION FOR DRILLING PERMIT for Regional Board Lead/Environmental Assessment / LOP Lead

Receipt number	Amount paid	For Office Use Only  EXEMPT
	Receipt numb	er
Site ID# FADO03429		Rev. code
	Site ID# 도	ADD03429
Permit # <u>SROO1008</u> H	Permit# <u></u>	SR0010084

Well type: [ ] Monitoring well [ ] Recovery extraction well [ ] Borin	• • • • • • • • • • • • • • • • • • • •	
[ ] Soil gas survey [ ] Direct push [ ] Air sparging/vention	ng [ ] Remediation well [ ] Other_	
Well depth Boring depth		
# On-site well/boring 2 ID # MW-4 and MW-6	# Off-site well/boring	ID#
Submit legal right-of-entry/off-site well address/encroachment permit		
On-site Address 509 N. Cloverdale Bivd., Cloverdale, C.	Α	4P#
Facility Name		
On-site OwnerCloverdale Unified School District		Phone
Street 97 School Street	City <u>Cloverdale</u>	State <u>CA</u> Zip <u>95425</u>
Responsible Party As Above		Phone
Street	City	State Zip
Consultant <u>George Goobanoff Associates</u>		Phone <u>707-433-4647</u>
Street 218 Burgundy Road	City <u>Healdsburg</u>	State <u>CA</u> Zip <u>95448</u>
License #/TypePG 6824 (Marc Seeley)		
Drilling Contractor Clear Heart Drilling, Inc.		Phone <u>707-568-6095</u>
Street555 W. College Avenue		
C-57 License # 780357		
Type of work: [ ] Initial investigation# Wells [ ] Subs	equent investigation#	Wells [X] Destruct # Wells
Groundwater investigation due to: [X] Underground tank [ ] Surface i [ ] Surface disposal practice—speci [ ] Other	mpoundment [ ] Environmental ass fy involved industry	
Perforated intervalsChem	ical constituents <u>TPH, BTEX</u>	
Disposal method for soil cuttings Drummed	Disposal method for development	water <u>NA</u>
Dritting method <u>Auger</u> Method	of drill equip. rinsate containment	Drummed
If destroying a well, abandonment method Over drilling		
Submit plot plan of wells in relation to all sewer or septic lines. Refer	to June 14, 2011 Work Plan	
Is well to be constructed within: 100 feet of a septic tank or leachfiel	ld? []Yes []No	
50 feet of any sanitary sewer line?	[]Yes []No	
25 feet of any private sanitary sewe	r line?[]Yes[]No	
In addition, all monitoring wells must include identification system affix	red to interior surface:	

1) Well identification 2) Well type 3) Well depth 4) Well casing diameter 5) Perforated intervals

Well identification number and well type shall be affixed to the exterior surface security structure.

	For Office Use Only
Address_4	509 N. Cloverdale.
	Blud
ļ —	
Site ID#	
Permit #	5R0010084

I hereby agree to comply with all laws and regulations of the County of Sonoma and State of California pertaining to water well construction. I will telephone (707) 565-6565, 48 hours in advance, to notify the Environmental Health Specialist when completing or destroying a well. I will furnish the Director of Health Services and the owner a legible copy of the State Water Well Driller's Report within 15 days; and a copy of the Summary Report, including sample results, should be received by this Department within 90 days in order to obtain final approval on this well permit. I acknowledge that the application will become a permit *only* after site approval and payment of fee. I understand that this permit is not transferable and expires one year from date of issuance.

Derri White Date 6/14/11
Signature of Well Driller—no proxies  Insurance Carrier Expiration Date [1] [2]
Once all wells/borings are installed, submit a Well Driller's Log and/or Summary Report to complete permit process.
Indicate on attached plot plan the exact location of well(s) with respect to the following items: property lines, water bodies or water courses drainage pattern, roads, existing wells, sewer main and laterals and private sewage disposal systems or other sources of contamination or pollution. INCLUDE DIMENSIONS. The validity of this permit depends upon the accuracy of the information provided by the applicant.
Conditions of permit:
Note: HWS is forgiven abandament at this time due to its
in agressible location under a portable class room - Per letter
dated 4.29.2009.
FOR OFFICE USE ONLY - ENVIRONMENTAL HEALTH DIVISION
Permit approved by Date 6 14 14
Constr. approved byObserved?
RWQCB / LOP approval Date 4 / 25 / 05

SONOMA COUNTY PUBLIC HEALTH DEPAR HAZARDOUS MATERIALS MANAGEMENT PROGRAM 2435 PROFESSIONAL DRIVE, SUITE A SANTA ROSA, CA 95403 (707) 527-1164



L.U.S.T. ID# 2426

# On-Site Wells/Bo	orings/ <u>5</u>	# Off-Site Wells/B	lorings/	(Attach right-of-entry	/ agreement)
On-Site Address:	509 N.	Cloverdabe	Blud,	Cloverdale	CA
On-Site Owner:	Cloverdale	Unified So	hool Disto	<u>\c-t</u> Phone:_(	(707) 894-2548
Address:	97 Sch.	ol Street,	Cloverdale	<u>, C</u> 4 AP#:_	001-021-27,28
Responsible Party:	Same a	s above		Phone:_	
Address;					
		4ssociates		<del></del>	(707) 792-5600.
		ood Way, Ste			CEG- 1014
Drilling Contractor:	Weeks	Drilling ;	Pump	Phone:_	(707)542-3272
Address:	6100 Se	bastopol Rd.	, Sebastop	O CA C-57 Lic.#:_	177681
TYPE OF WORK: C	☐ Initial Investigatio ☑ Subsequent Inve ☐ Destruction	n	lls/Borings	Monitoring W/ B-1/ B-2/ B-3	
WELL TYPE: C	Monitoring Well Geologic Boring	Recovery   Soil Gas S		Injection Wel	d to interior surface: 2(1) Well
	Other (specify)	<u> </u>			Nov. Exp
100 feet of a sep	within: tem boundary? otic tank or leachfield anitary sewer line?	Yes I No Yes I No		le Municipal	r surface of the squarity string re.
State of California pertain (707) 527-1164 to notify will furnish the Public He Well Driller's Report with acknowledge that the appunderstand this permit is (Signature of Well Driller).	ning to water well co the Haz Mat staff 48 ealth Officer and the in 15 days in order to plication will become a not transferable and the Haz Mat staff 48  TATE FUND  TATE FUND	gulations of the County of instruction. I will telephor hours prior to commencial owner a legible copy of to obtain final approval or a permit only after site at expires one year from display.  Policy #	ng this work. I he State Water in this well. I approval. I ate of issuance.	A currently Compension with this concentration in the Public He  I certify the for which employ are become s	reflective certificate of Worker's ation Insurance coverage is on file office, endorsed to Sonoma County atth Department.  at in the performance of the work this permit is issued I shall not any person in any manner so as to subject to the Worker's ation laws of California.
		nitted along with a work plot plan, (3) construction			Guidelines, which includes details
		FOR OFF	ICE USE ONLY	· · · · · · · · · · · · · · · · · · ·	
Permit Approval:	Such	non)	DATE:/	<u>-5-90</u> .	
Final Approval:	KM;	γ	DATE:	2-91 0	bserved Seal    Yes    No
NOTES:	· VI	/	-		

9/24/2019 EPA ID Profile





Jared Blumenfeld
Secretary for
Environmental Protection

#### **Department of Toxic Substances Control**

Meredith Williams, Ph.D.
Acting Director
1001 "I" Street
P.O. Box 806
Sacramento, California 95812-0806



#### **EPA ID PROFILE**

<u>Мар</u>

ID Number:CAD000302299Name:1X CLOVERDALE HIGH SCHOOLCounty:SONOMA

Status: Inactive Date:

INACTIVE 1/1/1991 12:00:00 AM 7/16/1986 12:00:00 AM

7/16/1986 12:00:00 AM 11/27/2001 12:00:00 AM

County: SONOMA Record Entered: NAICS: N/A Last Updated:

	Name	Address	City	State	Zip Code	Phone
Location	1X CLOVERDALE HIGH SCHOOL	509 N CLOVERDALE BLVD	CLOVERDALE	CA	954250000	
Mailing		DISTRICT OFFICE	CLOVERDALE BLVD	CA	954250000	
Owner	CLOVERDALE UNIFIED SCHOOL DIST			99	-	0000000000
Operator/Contact	DOUG DORMAN	-		99		7078942548

Based Only Upon ID Number: CAD000302299

Calif. Manifests?	Non Calif. Manifests?	Transporter Registration?
N/A	N/A	N/A

California and Non California Manifest Tonnage Total and Waste Code by Year Matrix by Entity Type (if available) are on the next page

**Calif. Manifest Counts and Total Tonnage** 

9/24/2019 EPA ID Profile

## No Records Found

#### Non California Manifest Total Tonnage

#### No Records Found

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

**Report Generation Date:** 09/24/2019

**EPA ID Profile** 9/24/2019





Jared Blumenfeld Secretary for **Environmental Protection** 

#### **Department of Toxic Substances Control**

Meredith Williams, Ph.D. **Acting Director** 1001 "I" Street P.O. Box 806 Sacramento, California 95812-0806



#### **EPA ID PROFILE**

<u> Map</u>

**ID Number:** CAD982013245 Name: CLOVERDALE UNIFIED SCHOOL DIST County: **SONOMA** NAICS: 61111

Status: **Inactive Date:** 

**INACTIVE** 6/30/1999 12:00:00 AM

**Record Entered:** 6/17/1988 12:00:00 AM Last Updated: 8/10/2004 11:17:55 AM

	Name	Address	City	State	Zip Code	Phone
Location	CLOVERDALE UNIFIED SCHOOL DIST	509 N CLOVERDALE BLVD	CLOVERDALE	CA	954250000	
Mailing		97 SCHOOL ST	CLOVERDALE	CA	954253244	
Owner	CLOVERDALE USD	97 SCHOOL ST	CLOVERDALE	CA	954253244	7078941920
Operator/Contact	SHARON RICHARDSON/M&O SUPV.	97 SCHOOL STREET	CLOVERDALE	CA	954250000	7078941920

**Based Only Upon ID Number:** CAD982013245

Calif. Manifests?	Non Calif. Manifests?	Transporter Registration?
Yes	N/A	N/A

California and Non California Manifest Tonnage Total and Waste Code by Year Matrix by Entity Type (if available) are on the next page

**Calif. Manifest Counts and Total Tonnage** 

9/24/2019 EPA ID Profile

#### Top line represents Manifest Count and Bottom line represents Total Tonnage

Year	Generator	Trans. 1	Trans. 2	TSDF	ALT. TSDF
1998	1 0.28510	0.00000	0.00000	0.00000	0 0.00000
2000	1 1.02160	0 0.00000	0 0.00000	0.00000	0 0.00000
2001	3 36.80910	0 0.00000	0 0.00000	0.00000	0 0.00000
2002	3 10.09220	0 0.00000	0 0.00000	0.00000	0 0.00000

#### Non California Manifest Total Tonnage

#### No Records Found

		Waste Code	Matrix						
California	<u>Generator</u>	<u>Trans. 1</u>	Trans. 2	TSDF	Alt. TSDF				
RCRA	<u>Generator</u>	Trans. 1	Trans. 2	<u>TSDF</u>	Alt. TSDF				

Waste Code Matrix as a spreadsheet

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

**Report Generation Date:** 09/24/2019

Results for California Waste Codes, as a Generator, for EPA-ID: CAD982013245

Calif. Waste Code	Description	1998	2000	2001	2002
151	ASBESTOS-CONTAINING WASTE	0	0	23.8091	7.5852
223	UNSPECIFIED OIL-CONTAINING WASTE	0	1.0216	0	0
331	OFF-SPEC, AGED, OR SURPLUS ORGANICS	0.0594	0	0	0.4
352	OTHER ORGANIC SOLIDS	0	0	0	2.107
	OTHER EMPTY CONTAINERS >= 30				
512	GALLONS	0	0	13	0
551	LABORATORY WASTE CHEMICALS	0.159	0	0	0
791	LIQUIDS W PH<=2	0.0667	0	0	0
	Grand Totals	0.2851	1.0216	36.8091	10.0922

No results for California Waste Codes, as a Transporter 1, for EPA-ID: CAD982013245

No results for California Waste Codes, as a Transporter 2, for EPA-ID: CAD982013245

No results for California Waste Codes, as a TSDF, for EPA-ID: CAD982013245

No results for California Waste Codes, as a Alternate TSDF, for EPA-ID: CAD982013245

Results for RCRA, as a Generator, for EPA-ID: CAD982013245

RCRA	Description	1998	2000	2001	2002
	Blank/Unknown	0.1011	1.0216	36.8091	9.6922
D001	Ignitable	0.0337	0	0	0.4
D002	Corrosives	0.1	0	0	0
D007	Chromium	0.0417	0	0	0
D009	Mercury	0.004	0	0	0
D019	Carbon Tetracloride	0.0041	0	0	0
P098	Potassium cyanide	0.0005	0	0	0
	Grand Totals	0.2851	1.0216	36.8091	10.0922

No results for RCRA, as a Transporter 1, for EPA-ID: CAD982013245 No results for RCRA, as a Transporter 2, for EPA-ID: CAD982013245

No results for RCRA, as a TSDF, for EPA-ID: CAD982013245

No results for RCRA, as a Alternate TSDF, for EPA-ID: CAD982013245

#### **County of Sonoma-Fire and Emergency Services Department CUPA-DMS** Permit No: 00-4569 Select Permit: Date Created: 07/14/1998 Version 7.4 Permit Type: Inactive **Inactive Date:** 04/11/2011 Facility Name: CLOVERDALE HIGH SCHOOL Facility ID Number: 49-028-004569 Locked Address: CLOVERDALE BLVD N Suite: Permit Issue Date: 04/25/2008 City: CLOVERDALE Bus. Lic: Permit Expire Date: 04/25/2011 Status: Permit Issued Find Record(s) & Print Labels **New CUPA Permit** Optional Cross Reference Number 00002426 **Violation Status Notice Letters Sent Enforcement Status** Pending: 0 NTC: 0 NOV: 0 Pending: 0 Overdue: 0 Owner/ Time Management Inspections & Open **Open Main Emergency Contacts** Enforcement Operator Info (Not Inspection Hours) . Violations Menu Admin Menu ✓ HMBP Count Underground Storage Tanks Range Cert HMBP: Active Tanks 0 4 0 HMIS: ✓ Inactive **Payments Invoice Form** Aboveground Storage Tanks HWG **V** Active Tanks **RCRA** UW PBR-HHW Recycler Tons None 1.2 Active Hazardous Waste Treatment (Tiered) SPCC Required Exit Inactive CalARP Regulated Substances Leaking Under Ground Storage Tank Program **CUPA-DMS** Both Storm Water Industrial Waste Green Business Program ☐ UFC Program Lead Agency: **Current Filter: Filtered Active** Copyright © 1997 by City of San Rafael, **Fire Services** Zone/FMA: Cloverdale CA. All rights reserved.

#### **Facility Information** Save & Close Permit Type Inactive Permit No 00-4569 Expire Date: 04/25/2011 04/11/2011 04/25/2008 **Inactive Date:** Issue Date: Facility ID Number: 49-028-004569 Comments: Type Facility transferred from EH 10/99; Auto shop no longer in use, permit to remain open pending funding for school 03/21/08 DN; Auto shop still not operation. Site inactivated. 4/11/11 MJ. 2 USTs removed Zone/FMA: Cloverdale 7/17/86; So Co EH closed site 7/22/11 Lead Agency: Fire Services **Facility Information Mailing Address Copy Facility** ☐ Facility address is mailing address Name **Facility Operator CLOVERDALE HIGH SCHOOL Business Name Facility Name** CLOVERDALE HIGH SCHOOL Address **Facility Address** Suite 97 SCHOOL STREET CLOVERDALE BLVD N 509 City State Zip **Facility City** Zip CLOVERDALE CA 95425-CLOVERDALE 95425-**Facility Cross Street** (707)-894-1920 Phone

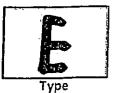
**Facility Phone No** (707)-894-1900

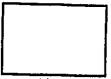
**Facility Parcel No** 

**Facility Fax No** 

**HMBP Reporting Year:** 

**Number of Employees:** 





Plans

WEL13-0100

Permit Number

509

Street Number

N CLOVERDAUP BUD

Street Name

CW

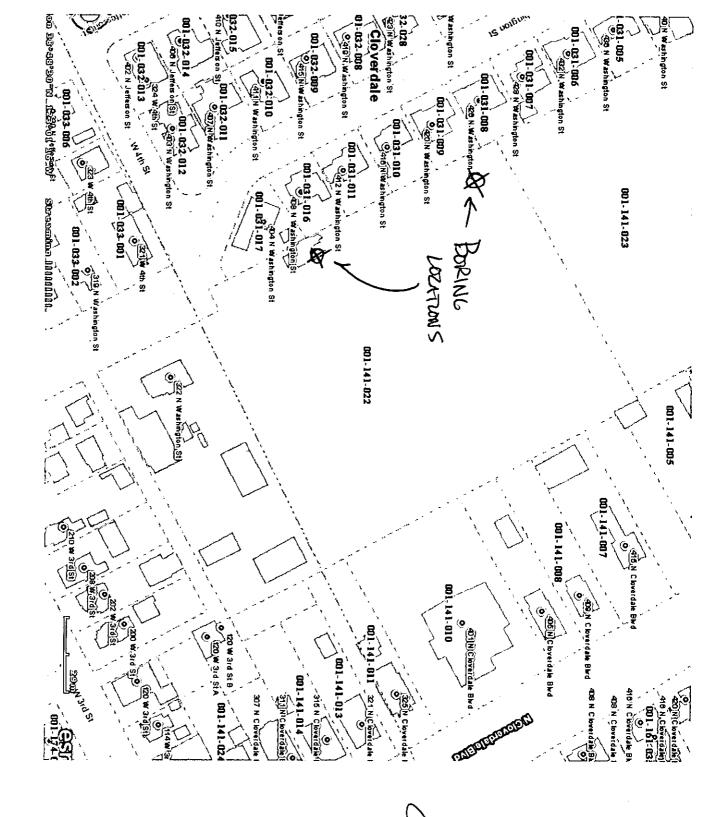
**Community Code** 

001-141-022

APN

# Well Permit Application WLS-031

<b>♦</b>	· · · · · · · · · · · · · · · · · · ·
City/Town Clovardale Unified Shool District  Owner Name 97 School Street  Mailing Address City/Town (707) 894-1920 (District)  Phone (707) 484-1798- David Peters on Contact Person  The validity of this permit depends upon the accuracy of the information provided addition to the information required on the Minimum Standard Site Plan (Form existing well (s) location (s), GPS coordinates of proposed well, sewer mains and site plan is provided and a second field visit is required, a charge at the current well must be staked with the driller's name.	essor's Parcel Number  Pearson Drilling  I Driller Name  P.O.Box 1031  ing Address Forestville  Town  781870  nse Number  (707) 887-8349  sed by the applicant. A site plan must accompany this application. In CSS-019), the site plan shall also include the proposed well location, laterals, and other potential sources of contamination. If an inadequate
INDICATE TYPE AND NUMBER OF PROPOSED WELLS/BORINGS:	
Indicate use: Residential Community Irrigation Reason for new well: Geotechnical test boying for	□ Industrial Site investigation
☐ Destruct ☐ Class   Well ☐ Class    Well ☐ Reconstruction	Reason for Class II:
[X] Geotechnical Borings - 1 [ ] Geoexchange [ ] Monitoring	[ ] Cathodic
[ ] Performance Well [ ] Piezometer [ ] Inclinometer	Other.
Total number of wells on property: Number in use:	Number inactive: Number abandoned:
Well located within an existing public water system boundary: Yes No No	
Construction Proposed: Boring Only - no well  Casing: Diameter: 8" boring Gauge: Material:  Annular Space: Size: Depth of Seal: full depth  Method of Disinfection: None Access Opening:  DESTRUCTION PROPOSED: Well Diameter: 8" boring well Depth:  Method of Destruction: Will Dackfill to full depth with cer	
WORKER'S COMPENSATION DECLARATION  I hereby affirm under penalty of perjury one of the following declarations:  I have and will maintain a certificate of consent to self-insure for worker's compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.  I I have and will maintain worker's compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My worker's compensation insurance carrier and policy number are:  Carrier  Policy  No.  (This section need not be completed if the permit is for one hundred dollars (\$100) or less).	I hereby agree to comply with all laws and regulations of the County of Sonoma and State of California pertaining to water well construction. I will telephone (707) 565-1694 to notify the Environmental Health Specialist 24 hours prior to commencing this work. I will furnish the Permit and Resource Management Department and the owner a copy of the State Well Completion Report within thirty (30) days in order to obtain final approval on this well as required by SONOMA COUNTY CODE, CHAPTER 25B. I acknowledge that the application will become a permit only after site approval and payment of fee. Innerestand that this permit is not transferrable and expires one year from the date of issuance.  Signature of Well Driller  Date
WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAW CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000), IN ADDITION TO 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.	
υ ρολοτ write BELOW THIS LINE -1	To Be Completed by PRMD Staff U
Site approved by MM Luis Date: 4/16	13 Seal Inspection Date: EHS
Finaled by: 10 m moders	Date: 2//3//8 GW Zone: 1 2 3 4
Comments	/ /
	ource Management Department



Engineery Geolgist-1186

p.1

p.s

		WEL13-0	(00)		5	09	N	CIO	LAT 3848 Werdale Land 123
L		CO PEARSON	DRILL	LIN	6		BO	RIN	IG NUMBER B-1
CLIENT Cloverdale Unified School District  PROJECT NAME Cloverdale High School Bleacher Replacement Project  PROJECT NAME Cloverdale						SIZE 8 Inches			
о ОЕРТН (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER BLOW	COUNTS (N VALUE)	WET UNIT WT. (pel)	FINES CONTENT (%)	MONSTURE CONTENT (%)	DRY UNIT WT. (pcf)	A SPT N VALUE A  20 40 60 80  PL MC LL  20 40 60 80  □ FINES CONTENT (%) □
		(ML) SILT: Brown, stiff, moist, occasional roots in upper 1 slightly clayey  (CL) SANDY CLAY: Mottled orange-brown to gray brown.				4			20 40 60 80
_5_		very stiff to hard, moist, minor coarse sand  Becomes moist to wel, occasional subrounded gravel encountered (<1.0" diam.), sand increases with depth	MMC (	14-20 34) (0-10 20)	130 .	81	18.5	110	
10		Occasional interbeds of gravetly and clayey sand (1-2" thi	SPT 2	5-11 (16)	·				
20		Gravelly layer from 18 to 19 feet bgs  (SC) CLAYEY SANO: Brown to grange brown, medium dense, saturated, fine grained, becomes operage grained at 1 feet bgs	at VSPT 2-			37 10			
26		(Continued Next Page)			<u></u>				

TREMIE

**BORING NUMBER B-1** PAGE 2 OF 2 CLIENT Cloverdate Unified School District PROJECT NAME Cloverdate High School Bloacher Replacement Project PROJECT NUMBER _7740,00 PROJECT LOCATION Cloverdaie, CA SAMPLE TYPE NUMBER FINES CONTENT (%) ▲ SPT N VALUE ▲ MOISTURE CONTENT (%) WET UNIT WT. (pcf) GRAPHIC LOG (pcf) 40 80 MATERIAL DESCRIPTION 20 40 60 80 DRY ☐ FINES CONTENT (%) □ 25 (SC) CLAYEY SAND: Brown to orange brown, medium dense, saturated, fine greined, becomes coarse grained at 391 14 21 feet bgs (continued) Sł (16) (CL) SANDY CLAY: Brown, stiff, saturated, lenses of coarse sand, color changes to blue gray at 30.8 feet tigs 30 SI (11)SPT GRAPH - GINT STD US LAB. GOT - SZRIFF 11:24 - P-KGINT FILE SPRCJECTSZTAGOG CLOVERDALE HS CEDTECH GPJ 3-4-7 SI (11)Coarse grained sand with occasional gravet (<0.5" diam.) (SC) CLAYEY SAND: Blue gray, medium dense, saturated, medium to coarse grained sand 40 4-9-13 25 SI (22)(CL) SANDY CLAY: Blue gray, very stiff, saturated, occasional lenses of coarse sand SI (20)(SC) CLAYEY SAND: Brown, medium dense, saturated, fine to medium grained sand SPT 5-8-12 33 SI (21)**SEOTECHLOG** Bottom of borehole at 51.5 (eq.). BACKFILLED WITH NEAT COMENT,

RECEIVED JUN 04 2013
JUN 04 2013
PRIND-WELL & SEPTIC